AN

ESSAY

ON

DISEASES

INCIDENTAL TO

Literary *and* Sedentary Perſons.

Juſt publiſhed by JAMES WILLIAMS, Bookſeller, in *Skinner-Row*. Price, 4s. 4d.

ADVICE

TO THE

PEOPLE in GENERAL,

WITH

Regard to their HEALTH:

But more particularly calculated for thoſe, who, by their Diſtance from regular Phyſicians, or other very experienced Practitioners, are the moſt unlikely to be ſeaſonably provided with the beſt Advice and Aſſiſtance, in acute Diſeaſes, or upon any ſudden inward or outward Accident.

WITH

A Table of the moſt cheap, yet effectual Remedies, and the plaineſt Directions for preparing them readily.

Tranſlated from the FRENCH Edition of

Dr. TISSOT's *Avis au Peuple*, &c.

Printed at *Lyons*; with all his own Notes; a few of his medical Editor's at *Lyons*; and ſeveral occaſional Notes, adapted to this *Engliſh* Tranſlation,

By J. KIRKPATRICK, M.D.

In the Multitude of the People is the Honour of a King; and for the Want of People cometh the Deſtruction of the Prince.
Proverbs xiv. 28.

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WITH

PROPER RULES for preventing their fatal Conſequences.

AND

INSTRUCTIONS for their CURE.

By S. A. TISSOT, M.D.

Profeſſor of PHYSICK at BERNE.

Now firſt tranſlated into ENGLISH.

DUBLIN:

Printed for JAMES WILLIAMS, Bookſeller, in *Skinner-row*. M,DCC,LXIX.

1608/4657.

TO

The CONSULS, QUÆSTORS, TRIBUNES, and other illuſtrious and great Men of the ſenatorial Order at *Berne*.

I Am indebted to you for many great obligations, moſt illuſtrious and great men; and lately you have done me the honour to confer a moſt noble and unexpected favour upon me. It is but juſt that I ſhould by words thank thoſe to whom I am incapable of making any other return; and ſuch a teſtimony of gratitude I will ſhew them as long as I live. It is proper that, being publickly graced by your favours, I ſhould make a public acknowledgment, and give ſome pledge of my gratitude, however mean and inadequate. Receive therefore, moſt illuſtrious and excellent men, and deign to receive favourably, this firſt though feeble proof of my diligence in my new office. May the Almighty enable me to promote the public intereſt of the academy by more con-

ſiderable and more valuable productions, and may the hopes which you have conceived of me, venerable fathers of your country, and the hopes which the people have conceived concerning this new profeſſorſhip, be fulfilled to general ſatisfaction. May the propitious Deity likewiſe favour all your public and private undertakings, and ſhower all his choiceſt bleſſings both upon you and yours, and the whole commonwealth. And ceaſe not, reverend fathers, to make happy, by your conſtant benevolence and favour, a man entirely devoted to the ſervice of your excellencies.

A. TISSOT.

Advertiſement to the Reader.

THE occaſion of this diſcourſe, and the choice of the materials, will ſufficiently appear from the diſcourſe itſelf: therefore, courteous reader, I ſhall not treſpaſs upon thy patience by a long preface.

I have long ſince read many treatiſes and diſſertations concerning the health of the ſtudious; but of all the authors, who have treated this ſubject, the only one who has acquitted himſelf to my ſatisfaction is BERNARD RAMAZINI: *for I have not yet had an opportunity of reading the work of the celebrated* PUJATUS, *a man who in other reſpects has deſerved highly of the medicinal ſcience; but whoſe treatiſe upon this ſubject is, I find, neither praiſed by the journals nor by his friends. Nor is the work of* RAMAZINI *compleat; ſince he has left more topicks untouched than he has elucidated. I have therefore undertaken an important, an agreeable, and even a new ſubject; and I hope I ſhall not appear unequal to it: but it will be ſufficient to have pointed out the road at a diſtance to learned travellers; they will ſoon be able of themſelves to ſhew the unknown paths; which is my earneſt wiſh and*

deſire. In this treatiſe there will occur many paſſages tranſcribed verbatim from CELSUS, GAUBIUS, *and other eminent men, and that even without diſtinguiſhing them by quotation. This plagiariſm will, I hope, be excuſed, becauſe I looked upon it as a ſort of profanation to alter their words, as they were extreamly eloquent, and admirably adapted to my purpoſe: beſides, it was improper to diſguſt the reader by too great a number of quotations.*

ON THE

DISEASES

OF

Literary *and* Sedentary Perſons.

WHEN I conſider with myſelf how many and how great men have formerly aſcended this chair, with how general an applauſe they apply'd to the education of youth, and how every branch of erudition has been cultivated to ſuch advantage by the preſent ſet of teachers, into whoſe learned order I am this day admitted by the great favour and indulgence of our ſenate; whilſt I at the ſame time reflect how much this new ſituation differs from my former manner of living, in which as I had willingly paſs'd a conſiderable part of my life, I had determin'd to continue to my old age; when I reflect upon all theſe circumſtances, a tremor ſeizes my limbs, and my voice falters. But becauſe from the very foundation of this reſpectable academy, cuſtom,

tom, which governs all things, and your expectation requires it of me, embolden'd by your kindneſs, I will make trial of my abilities.

Being a new member, and aſcending a new chair, I propos'd to ſpeak of the connexion between phyſic and other academical ſtudies, and it was my deſign to explain what it borrows from them, and what it contributes to them in its turn.

It would be a pleaſure to me, reverend paſtors of the church, and illuſtrious profeſſors of divinity, to declare aloud how much phyſick is indebted to religion; I would gladly vindicate the principles of phyſicians from the imputations of ancient calumny, and prove that religion is ſtrongly ſupported by a ſcience, which, being totally converſant in the contemplation of an admirable creature, demonſtrates from the wonderful mechaniſm of a man in health, and the ſurpriſing cures of the ſick, the exiſtence and great wiſdom of the Supreme Artificer, and that even to the moſt obſtinate. Do men forget the Deity; Phyſicians ſtand forth, and theology is entirely reviv'd; for who have ſpoken more truth, or in a ſublimer ſtile concerning God, than they; there would be no end, were I to cite them all; but I muſt not paſs over in ſilence HIPPOCRATES, the firſt who ever aſſerted that fate produc'd nothing, but that all thoſe events, which we call fortuitous, are regulated by the will of God: the next to him is GALEN, who diffuſively proves, that the exiſtence of God is demonſtrated by the poſition of the thumb alone;

and

and calls his treatiſe concerning the uſe of the parts, a monument to the glory of the Deity: to him muſt be added POLYCHRESTUS, to whom the illuſtrious ſir-name of *Lover of God* was given, on account of his great piety: BOYLE, who wrote excellent works himſelf, and founded an admirable inſtitution for the promotion of religion, which he nobly endow'd; his friend SYDENHAM; the immortal LOCK; HOFFMAN, who carried his piety ſo far, that he was not entirely free from ſuperſtition; the admirable TRALLES; and my dear and worthy friend HALLER, who in an excellent treatiſe has aſſerted the utility of religion in a manly ſtile, as uſual, and exerts himſelf to the utmoſt to promote its cauſe.

Phyſicians indeed laugh at the idle tales of old women, at the extravagancies of the vulgar, and thereby incur the cenſure of weak and ſuperſtitious people; they deride the inventions of imagination; and whilſt every divine lays down his own opinion as the rule of truth, phyſicians make a jeſt of the phantoms which theſe ſet up for religion, and refuſe to embrace a cloud for a Juno: thence all theſe clamours, theſe accuſations, theſe reproaches, and theſe calumnies. But if ſome of our ſociety have in fact been led aſtray by error, which I am ſorry to ſay cannot be denied, the ſevere cenſure of their colleagues has ſoon convinced the public how much they diſapprov'd of their principles.

It would be a pleaſure to me, moſt learned profeſſor of morality, whom to addreſs by the tender name of father-in-law is my great-

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eſt happineſs; it would be a pleaſure to me, I ſay, to treat to the beſt of my abilities of the connexion between the knowledge of morals and of health; how near the relation is between them, how exact the concatenation in every reſpect. This is certainly both an agreeable and uſeful undertaking: nor is it altogether new; for HIPPOCRATES has in his whole treatiſe concerning diet, done his utmoſt to prove that ſouls are the ſame in all men, and that the various degrees of wiſdom and folly proceed from the different temperament of their bodies; and GALEN, who has admirably demonſtrated the power of the body over the mind and the motions of the will, deſired the teachers of philoſophy, ſixteen ages ago, to ſend all perſons of bad morals to him to be cur'd *(a)*.

Should I be ever ſo full, moſt learned profeſſor of juriſprudence, I could not entirely diſplay the connexion between us; for whe-

(a) Now let thoſe come to themſelves who with difficulty admit, that the aliments are capable of rendering ſome more temperate, others more diſſolute, ſome incontinent, ſome frugal, confident, timorous, mild, modeſt, or quarrelſome; let them come to me and hear what it would be proper for them to eat, and what to drink. They will find from hence a great aſſiſtance in moral philoſophy; they will likewiſe find from hence a great acceſſion to their intellectual faculties; they will become more ingenious, have better memories, and be more ſtudious and wiſe. For beſides the proper ſort of food and liquors, I will inſtruct them in the nature of air and climates, and point out to them what countries they ſhould chuſe to reſide in, what they ſhould avoid. The book which proves that manners are influenc'd by bodily conſtitutions, Cap. 9°. Charterius, t. 5. p. 457. Obſervations of the like nature are to be found in HIPPOCRATES, ARISTOTLE, and PLATO.

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ther a legiſlator regulates a commonwealth, or whether a judge upon the bench weighs queſtions of civil law, or criminal and eccleſiaſtical cauſes, in the ballance of Themis, there occur caſes, and thoſe not a few, in which he cannot do without the aſſiſtance of our art.

It would be neceſſary to lay open the greateſt part of natural knowledge, moſt profound profeſſor of philoſophy, were I to treat of all that it has in common with phyſick; for you well know that both the cure of diſeaſes, and the contemplation of the nature of things, had their beginnings from the ſame authors. We are therefore inform'd that many of the profeſſors of natural philoſophy were well ſkilled in phyſick, and that the moſt illuſtrious of theſe were PYTHAGORAS, EMPEDOCLES, and DEMOCRITUS. HIPPOCRATES was the firſt who ſeparated theſe ſtudies; but he did not ſeparate them in ſuch a manner as to pull them aſunder entirely, but ſo as to ſplit that comprehenſive ſcience into ſeveral more minute members, that many might cultivate divided, what one could not learn entire; but that neither ſhould deſert what nature made inſeparable.

That part of this ſcience, which conſiders body merely as body, has retain'd the name of natural philoſophy: others went by various names, according to the different ſorts of bodies of which they treated. The human body is the object of phyſick, which without natural philoſophy is lame; for he

is but a dunce in the art of healing, who is not acquainted with the forces of bodies, and the laws of motion: nor do profeſſors of phyſic care to undertake the education of thoſe, who are ignorant of natural philoſophy. But if phyſic is greatly indebted to this ſcience, it can in ſome reſpects return the favour, and phyſicians have return'd it in many inſtances: for GILBERT, who firſt ſatisfactorily explain'd the phænomena of electricity, was a phyſician, as was likewiſe BOYLE, who promoted natural knowledge more than any other philoſopher; and BOERHAAVE, whoſe experiments upon the elements have given a new face to this ſcience; and to paſs over many others in ſilence, the illuſtrious MUSCHEMBROEK, who is univerſally allow'd to ſurpaſs all others in this article.

And there is ſome connexion, though perhaps not ſo cloſe, between your ſtudies and phyſick, illuſtrious profeſſors of hiſtory and languages; for what phyſician would not be aſham'd to be ignorant of hiſtory and the humanities; who would not be deſirous of conſulting the Arabian phyſicians in the originals, as none of them has hitherto been faithfully tranſlated? Are there not likewiſe certain parts of hiſtory, which phyſick alone can throw proper lights upon? Is not CELSUS a phyſician, whoſe works all that are deſirous of ſpeaking latin in perfection, ſtudy night and day? PLINY, in whom we meet not merely with helps for acquiring the Latin language, but with the pureſt Latinity, though

though he did not practiſe phyſic, underſtood it perfectly, and is entirely taken up in explaining it. ARETEUS, whom we reſpect as a maſter of the healing art, is conſpicuous for the elegance of his Greek. GALEN has an eloquence peculiar to himſelf. So has ALEXANDER. And thoſe who cultivate the Arabic language, boaſt that it is no where to be found in greater purity than in the writings of phyſicians.

It appear'd to me at firſt ſight, that on ſo copious a ſubject it would be eaſy to make an oration; but upon maturer deliberation I began to think quite otherwiſe; and ſo, having laid down a burthen too heavy for my ſhoulders, and left it to more ſublime geniuſes, I kept to my practice, *my labour is here engaged, and not my eloquence;* and, having reſigned the hopes of declaiming like an able orator, or ſoothing your ears with the allurement of words, I have choſen this ſubject, as capable of pleaſing you by its own force; and as it is ſufficient barely to lay it before you, it requires no ornaments:

De tauris dicit arator, navita de ventis.
Quod medicorum eſt promittunt medici.
The plowman talks of oxen, the ſailor of the wind.
Phyſicians offer what belongs to their profeſſion.

And addreſſing myſelf to learned men as a phyſician, I ſhall treat of the health of ſtudious men; and here again I muſt requeſt your indulgence:

Dira per incautum ſerpunt contagia vulgus.
A dire contagion through the vulgar ſpreads.

But whilſt I was hurried about to attend a crowd

crowd of patients, I had no leiſure to poliſh my work; therefore I have without method thrown together my thoughts and obſervations on this uſeful topic.

It is an old complaint, that ſtudy, though eſſentially neceſſary to the mind, is hurtful to the body; and CELSUS has intimated the neceſſity of a remedy. Thoſe that are of weak conſtitutions, ſays he, as moſt ſtudious men are, ſhould take greater care than others, that what is impaired by application to their ſtudies may be repair'd by attention to their conſtitutions. And PLUTARCH, an admirable judge of what is right and becoming, declares it to be a ſhame, that the learned ſhould ſpend days and nights in uſeleſs inveſtigations, and at the ſame time neglect the art of preſerving their health; being, doubtleſs, ignorant that the healing ſcience was formerly look'd upon as a part of wiſdom, and that thoſe chiefly requir'd medical aſſiſtance, who have impair'd their bodily ſtrength by anxious thought and watchfulneſs.

There are two principal ſources, from whence all the ſufferings of the ſtudious flow; the conſtant exerciſe and application of the mind, and the continual reſt of the body; for they are as indolent in body, as they are buſy and active in mind. By enumerating the ills, that ariſe from both cauſes, a dreadful crop of diſeaſes will be diſplay'd.

Let metaphyſicians bewilder themſelves in inquiries, how the mind governs the body, and is govern'd by the latter in its turn; phyſicians,

phyſicians, deſcending to conſiderations of leſs importance, but of greater certainty, perhaps, and little ſollicitous about the cauſes of this mutual government, and but confining their inquiries to phænomena, know by experience, that certain emotions of the mind neceſſarily ariſe from certain conditions of the body, and that by particular emotions in the mind particular changes are unavoidably produc'd in the body, and that whilſt the mind thinks, ſome part of the brain is ſtretch'd. We make no other inquiry; it would be of no uſe to know any thing farther.

So cloſe is the connexion between mind and body, that we cannot well conceive the operations of the one independent of ſome correſpondence with the other. For as the ſenſes are incapable of conveying the materials of thought to the ſoul, without the motion both of their own fibres and thoſe of the brain, ſo, whilſt the mind revolves theſe cogitations, the organs of the brain are more or leſs ſtimulated to act, ſtretch'd, and have oſcillatory motions excited in them. The mind agitates the machine; and theſe are the labours of the medullary part, which, being ſo tender, does not ſuffer the leſs by theſe motions; and every man eaſily feels that in himſelf, which the ſtrongeſt arms experience after the moſt violent exerciſe.

For which of you, that has been addicted to a ſtudious life, has not often found, after intenſe thought, that the innermoſt part of the brain has been affected by a troubleſome

heat, and intenſe pain, ſuch as the muſcles feel when fatigu'd with long labour? Nor does the medullary part of the brain ſuffer alone, but the very eyes themſelves can perceive the force of the thinking ſoul, extended beyond the brain: for whilſt we look upon a man that meditates ſeriouſly, all the muſcles of his face appear ſtretched, nay ſometimes convuls'd. Nor does the brain, the medulla of which is the ſource of the nerves, ſuffer alone, but they themſelves are hurt; and PLATO has admirably ſhewn, in the maſculine ſtyle in which he ſo greatly excell'd, how much the exerciſe of the mind prejudices the body. "Quando anima, "inquit, corpore admodum potentior eſt, "exultatque in eo atque effertur, totum "ipſum intrinſecus quatiens languoribus im- "plet. Quando etiam ad dicendum, in- "veſtigandumque, collectis in unum vi- "ribus, vehementer incumbit, liquefacit "prorſus corpus, & labefactat; denique "cum ad dicendum, diſſerendumque pri- "vatim & publice ambitioſa quadam con- "certatione contendit, inflammat corpus "atque reſolvit. Tam arcta enim lege con- "ſortii, ſic RAMAZZINI, fœderantur ani- "ma & corpus ut omnia tam bona quam "mala unius in alterum viciſſim corrivent, "ac veluti, ex corporis nimia exercitatione, "anima ad mentis functiones langueſcit, ac "torpet, ſic ob nimiam animæ conten- "tionem, circa ſapientiæ ſtudium, corpus "marceſcat neceſſe eſt, abſumptis nempe "ſpiritibus, communi ſcilicet inſtrumento

"ad

" ad materiales & ſpirituales operationes " rite obeundas." " As the mind, ſays " he, is far more powerful than the body, " and exults and is elate therein, it affects " it inwardly, and fills it entirely with " languor; and when, by gathering toge- " ther its ſtrength, it applies earneſtly to " learning and to the inveſtigating of things, " it quite diſſolves and unhinges the body: " finally, when with an ambitious emula- " tion it exerts itſelf to ſpeak and harangue " both in private and public, it inflames the " body and relaxes it. For, as RAMAZZINI " obſerves, the ſoul and body are united by " ſo firm a league, that all the advantages " and diſadvantages of the one muſt affect " the other; and as the ſoul is rendered " languid in the mental functions, and be- " comes ſtupified in the ſame manner by the " too great application of the mind to the " ſtudy of wiſdom, the body muſt unavoid- " ably pine away, the animal ſpirits being " conſum'd, which are the only inſtruments " of rightly performing both material and " ſpiritual operations *(b)*." Theſe are indeed obſervations highly juſt. For he who is not ignorant what a multitude of nerves there are in the animal ſyſtem, who is ſenſible that there is no function that can be performed without them, will eaſily apprehend that by the fatigue of the medulla a languor may be brought upon all the nerves, ſo that the ſeveral functions may be weaken-

(b) Plato's works, p. 648.

ed, and the ſtrength of the body may, without its being exerciſed, be totally exhauſted.

It is univerſally known that there are books compos'd without any ſtrength of genius, which appear quite inſipid and unaffecting to the reader, and only tire the eyes; but thoſe that are compos'd with an exquiſite force of ideas, and with an exact connexion of thought, elevate the ſoul, and fatigue it with the very pleaſure, which, the more compleat, laſting, and frequent it is, breaks the man the more *(c)*.

MALEBRANCHE was ſeized with dreadful palpitations in reading DESCARTES's Man; and there is ſtill living at Paris a profeſſor of rhetoric, who fainted away whilſt he was peruſing ſome of the ſublime paſſages of HOMER *(d)*.

The head itſelf, and the nerves, and the ſtomach which is fuller of nerves than any other part, firſt ſuffer for the errors of the mind.

An eminent perſon, who had impair'd his health by too intenſe an application to ſtudy, was immediately ſeiz'd by a terrible vertigo, if he happened to liſten attentively to a perſon telling a ſtory. He likewiſe complained, that nothing could give him greater uneaſi-

(c) 'Tis an admirable obſervation of MONTESQUIEU: All things fatigue us at laſt, and above all great pleaſures, the fibres, that were the organs of it, ſtand in need of reſt: we muſt employ others better adapted to ſerve us, and thus as it were, divide our labour. *Eſſay upon taſte.*

(d) LORRY *upon melancholy and melancholy diſorders.* Tom. I.

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neſs than his attempting to recall the memory of any thing, for then he was put to the greateſt pain imaginable, and ſometimes ſeiz'd with a fainting fit, attended with a ſenſe of extreme laſſitude. Nor could he deſiſt from his effort after he had once begun it, though he labour'd ever ſo much for that purpoſe; but was under a neceſſity of proceeding as he had begun, till he fainted away (*e*). The illuſtrious VIRIDET, formerly my fellow-citizen, knew a woman who, whenever ſhe us'd any application of mind, was ſeiz'd with a ſevere fit of the colic (*f*). And a late author ſpeaks of a man who never thought intenſely, or experienc'd any lively ſenſation, or was put in a paſſion, but his whole arm immediately ſwell'd up (*g*). Both of which caſes may be explained by the defect of the nerves alone, and the action of the mind upon the nerves.

Daily obſervation proves the force of the mind's action upon the ſtomach; and this every man has an opportunity of experiencing in himſelf; for the more intenſely any man thinks, and the more ſtrongly he exerts the reflecting powers of his mind, the more ſlowly and with the greater difficulty, *cæteris paribus*, does he digeſt what he eats; and, on the other hand, the freer a man's

(*e*) VAN SWIETEN's *Comment. in* BOERHAVII *aphor.* Tom. III. p. 413.

(*f*) *Traité du bon chyle*, tom. II. p. 647.

(*g*) Th. BORDEUX, *prix de l'academie de chir.* tom. VI. p. 199.

mind is from reflexion, the more readily and the better he digeſts. It is obſervable that fools always eat and drink a great deal, and yet digeſt perfectly well, even though they lead a ſedentary life, and do not ſurpaſs others either in the bulk or ſtrength of their bodies: whilſt men of genius and abilities, though they have ſtrong muſcles, and take exerciſe ſufficient, are obnoxious to crudities in the ſtomach and ſlowneſs of concoction (*h*). BOERHAAVE, who reſided a long time in a city renown'd for learning, has obſerv'd that ſtudies excite a diſagreeable ſenſation at the upper orifice of the ſtomach; and that, if this be neglected by the ſtudious, madneſs enſues (*i*). My illuſtrious friend POME knew a man of learning, who had made his ſtomach ſo infirm by intenſe application, that immediately after eating he vomited (*k*). I myſelf have ſeen ſome, who, when their minds were wearied out with conſtant ſtudy, being taken ill, at firſt loſt all appetite, then were ſeiz'd with a weakneſs of their whole bodies, and at laſt with dreadful paroxyſms, which began with vomiting, and ended in convulſions and a total privation of their ſenſes.

Soon, by an unavoidable fatality, the diſorder that had affected the body recoils upon the mind; for the Author of nature has ordain'd that moſt of the operations of the latter ſhould ſtand in need of the aſſiſ-

(*b*) Conf. FLEMING *Neuropathia, præf.*
(*i*) *De morbis nervorum*, p. 456.
(*k*) *Traité des vapeurs hyſteriques*, p. 248.

tance

tance of the former; which has given occaſion to the following juſt obſervation of PLINY the younger (*l*), and long before him it was obſerved by DEMOCRITUS, that the mind is ſupported by what ſupports the body. "Augeſcit mens cum adeſt ſanitas, "adeoque huic ut proſpiciant, qui recte "ſentiant conſentaneum eſt: ubi vero cor-"poris habitus dolet nec mens ad virtutis "meditationem eſt alacris." "The mind "acquires new vigour whilſt the body is in "health; therefore all thoſe who think "juſtly will take care of the latter: but, "when the body is in a painful ſtate, the "mind is leſs alert in the meditation of "virtue (*m*)." Should it then ſeem ſurpriſing, if, when the tenor of the brain and nerves is broken by the efforts of the mind, the latter ſhould decline in its turn? Firſt of all it is depriv'd of its fortitude; diſtruſt, terror, and melancholy, ſeize upon it; and he who would have ſtood undaunted amidſt a falling world a few months before; is every moment fill'd with terror and conſternation, as ſoon as his nerves are affected by a hypochondriac diſorder. Relentleſs tyrants may have condemn'd to death philoſophers whom they hated; but it never was in their power to ſubject them to the dread of death, which they had long ſhaken off. O how much more cruel would they have been, if they had granted them their

(*l*) *Epiſtol. lib.* 2. *ep.* 9.

(*m*) *Epiſtol. ad* HIPPOCRATEM. *Hipp. Fœſii.* tom. II. p. 1288.

lives, and had it in their power to torment their minds with hypochondriacal terrors!

Thus render'd unequal to the taſk of ſtudy, the learned are at laſt under a neceſſity of quitting their belov'd purſuits; for, as the ſtrength of their nerves diminiſhes, their attention fails, the memory begins to loſe its tenaciouſneſs, the ideas are obſcur'd, and an uneaſy ſenſation of heat over the whole head, a dreadful palpitation, the moſt extraordinary weakneſs, and a groundleſs fear of approaching death, oblige them to diſcontinue their application. Their ſtrength being at laſt repair'd by reſt, nouriſhing, aliments, and exerciſe, they renew their aſſiduity in ſtudy, but are ſoon oblig'd to quit their books as before. Thus the whole day is loſt; and when evening approaches and they retire to bed, their weakneſs and anxiety make them paſs their nights moſt diſmally, whilſt the great mobility of their nerves prevents their ſleeping, and ſometimes increaſes to ſuch a degree as totally to deprive them of the power of thinking. I know a young man, upon whom an intenſe application to ſtudy had this extraordinary effect, that, if he read even a few pages, he was torn with convulſions of the muſcles of the head and face, which aſſum'd the appearance of ropes ſtretch'd very tight.

Nor does too intenſe an application produce only ſlight and tranſient convulſions of the muſcles; it likewiſe renews and generates the moſt dreadful nervous diſorders.

GALEN

GALEN (*n*) mentions a grammarian, who was ſeized with a fit of the epilepſy, whenever he meditated profoundly, or taught with vehemence. I myſelf have ſeen inſtances of it. And the illuſtrious VAN SWIETEN laments the caſe of youths of the brighteſt hopes, who have been ſeiz'd with a dreadful and incurable epilepſy, upon being compell'd by ſevere maſters to apply to their ſtudies with ſcarce any intervals of relaxation. HOFFMAN (*o*) makes mention of a young man, who, as often as he weary'd out his memory and his genius by attentive ſtudy, was ſeiz'd with a momentary epilepſy, a palpitation of the heart, and a trance; but when he remitted of his aſſiduity, was always tolerably well. This the celebrated PETRARCH likewiſe unhappily experienc'd, being ſeiz'd with an epilepſy through his great application to ſtudy, to which he was immoderately attach'd. In a public promotion, one of the candidates for literary honour after having purſu'd his ſtudies with the moſt arduous application both day and night, through a too great attention to his oration, that he might be able to ſay it accurately by heart, was ſuddenly ſeiz'd with a catalepſy and fell down (*p*).

The labour of the mind not only produces nervous diſorders, but, by means of the nerves, gives riſe to other complaints. An

(*n*) *De locis affectis, lib.* 5. *cap.* 6. *Charter.* tom. VII. p. 492.

(*o*) *Medicin. ration. de epilepſia.* § 19.

(*p*) *Felic.* PLATERI *obſervat.* p. 28.

eminent

eminent mathematician, who was troubled with an hereditary gout, and had always liv'd ſoberly and chaſtely, haſten'd a paroxyſm by applying a long time to the ſolution of a difficult problem (*q*). And the caſe of the chevalier DE PERNAY is very extraordinary. After four months of the cloſeſt ſtudy imaginable, and without any previous diſorder, his beard fell firſt, then his eye-laſhes, then his eye-brows, then the hair of his head, and finally all the hair of his body (*r*). Did this proceed from the great relaxation of the roots, from which the hairs grow; or from the want of nutrition? Certain it is, that an intenſe application of mind relaxes the whole corporeal frame, and prevents all nutrition for two reaſons; for this is the effect of thought, not upon all, but upon moſt conſtitutions, that it accelerates the pulſe, and produces a fever, which, by diſſolving the nouriſhing jelly of the fluids, occaſions paleneſs, leanneſs, conſumption, and a ſort of waſting of the nerves; on the other hand, the ceſſation of the action of the nerves, is capable of producing it. Nor does it leſs ceaſe in the whole body, whilſt it is obſtructed by application of mind, than when it is ſtopped by a ſwelling or a ligature in any part. We ſhould not be too inquiſitive in prying into cauſes; and many circumſtances relating to nervous diſorders will for ever remain unknown: but if any one ſhould be curious

(*q*) VAN SWIETEN, tom. IV. p. 305.
(*r*) *Gazette de France, Fevr.* 25, 1763.

to know how the too great tenſion of the nerves is hurtful, I will briefly give him my ſenſe of the matter. The body is exhauſted by too great an evacuation; hence ariſes weakneſs, an extraordinary tenuity of the humours, and, what it is generally productive of, a diſeaſed mobility. Suppoſe the blood were to run copiouſly from a wound, or the gaſtric fluids were to be pour'd forth by the anus, or the breaſts ſuck'd too long, or a greater diſcharge of ſaliva made by ſpitting, or the wretched body were to be troubled with a long diabetes, or in ſhort, any other evacuations were too much increaſed, the ſtrength would decline, and the health be loſt; but whilſt the nerves act, their fluid runs out of the body, and carries off the ſtrength with it; nor is there any thing in the body either more labour'd, more neceſſary in many animal functions, or more intimately connected with ſtrength. In ſtudious men, therefore, a perpetual diſſipation of the nervous fluid ſprings from the inceſſant action of the nerves, attended with weakneſs, and an extraordinary mobility, from whence all the above-mention'd diſeaſes eaſily take riſe; theſe are very dreadful, but diſeaſes ſtill more dreadful remain to be deſcrib'd.

It is not eaſy for the mind not to throw out at will ſuch motions as it has powerfully conceiv'd; and this is a ſecond cauſe of the diſeaſes of ſtudious men, from whence ſpring ſo many errors and wanderings of the mind, to be chang'd for death only,

ſo

ſo many phrenzies and deliriums: for whilſt ideas no longer anſwer to their external objects, but to the internal diſpoſition of the brain, the latter being agitated by its own motion, either entirely, or in part, is unable to receive new vibrations, to be tranſmitted, all, or ſome, by the ſenſes; whereas thoſe that are ſpontaneous cannot be check'd.

The brain of BLAISE PASCHAL was ſo vitiated by paſſing his life in the laborious exerciſes of ſtudy, thought, and imagination, that certain fibres, agitated by inceſſant motion, made him perpetually feel a ſenſation, which ſeemed to be excited by a globe of fire being plac'd on one ſide of him; and his reaſon being overpower'd by the diſorder of his nerves, he could ſcarce baniſh the idea of the fiery globe being actually preſent. SPINELLO painted the devils thrown from Heaven by the Almighty, and gave ſo fierce a countenance to Lucifer, that he was ſtruck with horror himſelf; and during the remainder of his life, his imagination was continually haunted with the figure of that demon, upbraiding him with having made ſo ſhocking a portrait of him. There are many others, whom the force of genius too much rous'd, has for ever hurried beyond the boundaries of truth. GASPAR BARLAEUS, who was at once an orator, a poet, and a phyſician, was not ignorant of this danger, concerning which he admoniſhed

iſhed his friend CONSTANTIUS HUYGENS (*s*); but being blind with regard to himſelf, he by immoderate ſtudies ſo broke the force of his ſenſorium, that he thought his body was made of butter, and carefully ſhun'd the fire, leſt it ſhould melt him, till being at laſt tir'd of his excruciating fears, he lept into a well. I muſt ſtill grieve for a friend of a penetrating genius, an excellent underſtanding, of ſtrict morals, and one that ſeem'd born for a better fate; who being animated with too great a love of learning, and in particular of the medical ſcience, by reading night and day, obſerving, making experiments, and meditating, at firſt became ſleepleſs; then began to talk, ſometimes incoherently, and ſometimes rationally; at laſt run mad, and having ſcarcely eſcap'd with life, never recover'd his reaſon. I have known many others, who by ſtudy alone were firſt rendered phrantic, or crazy, and at length became idiots. I love, eſteem, and honour an illuſtrious man, and a man of extraordinary abilities, who being twelve hours intent upon ſettling a difficult memorial, after having finiſh'd his work, became delirious till a ſoft ſleep quieted the ſtate of his nerves. Obſervers give us accounts of many ſimilar caſes, and I was inform'd by a witneſs who may be confided in, that PETER JURIEU

(*s*) *Epiſtol. L.* 2, *ep.* 40. Neither write back to me in proſe or in verſe, leſt you ſhould bring your health, which is not yet confirm'd, into new danger: for the ſpirits will be eaſily warm'd by attention: hence blood, hence the habit of body.

who

who was formerly famous for his talent at diſputing, by his labours in writing books of controverſy, and expounding the apocalypſe, ſo diſordered his brain, that though he thought like a man of ſenſe in other reſpects, he was firmly perſuaded that the ſeven fits of the cholic, with which he was tormented, had been occaſion'd by a conſtant fight between ſeven horſemen that were ſhut up in his bowels. There have been many inſtances of perſons, who thought themſelves metamorphos'd into lanterns, and who complain'd of having loſt their thighs.

But thoſe are affected in the moſt dangerous manner, who dwell too long upon one and the ſame thought; for thus one part of the ſenſorium being longer ſtretch'd than the reſt, without being ever reliev'd by the others in their turn, is the ſooner broke; for as the body ſuffers more if one or but a few muſcles alone act, ſo the brain is the leſs fatigued when various parts act ſucceſſively; the part which diſcontinues recovers its ſtrength, whilſt the others are at work; and that is durable which does not want alternate reſt.

Many years ago I knew a woman, who appear'd to have very good ſenſe for five and twenty years; but having, unhappily for her, embrac'd the ſect of the Herrenhutters, ſhe became entirely inflam'd by the love of our bleſſed Saviour, and of him alone; and ſhe dwelling entirely upon this idea both day and night, it ſo broke the tone of her brain,

brain, that in a few months time ſhe became an idiot; but ſtill ſhe was ſo mindful of her Lamb, that viſiting her every day for half a year together, and frequently addreſſing my diſcourſe to her, I could never hear any other words from her than *my ſweet Lamb;* and this ſhe utter'd every half hour, with downcaſt eyes, and was the only word ſhe ſpoke for a year and a half; which time being elapſed, ſhe pin'd away and died. And to paſs by other examples, there was not long ago in this academy, a young man of bright hopes, who being too earneſtly ſolicitous about ſquaring the circle, died mad in the Paris hoſpital.

The third cauſe of the diſorders of the brain, is, that law to which the human machine is ſubjected; that a new quantity of blood ſhould be added to the part that acts. The illuſtrious MORGAGNI knew a man of learning at Boulogne, who whenever he gave his mind to abſtract meditations in the morning, before he roſe, was ſure to bleed at the noſe for a ſhort time after (*t*). Therefore as often as the brain increaſes its action, it is moiſten'd with an additional quantity of blood, which, giving a new tenſion and a quicker motion to the veſſels, brings on both the ſenſe of pain and heat already mentioned, and many more grievous ſymptoms; namely, according to the different ſtate of the brain, of the blood, and external objects, it occaſions dilatations of the veins and arteries, obſtructions of the nerves, in-

(*t*) *De ſedibus & cauſis morbonum. ep.* 3. § 13.

flammations,

flammations, ſuppurations, ſcirrhous tumours, ulcers, dropſies, and thence headachs, deliriums, drowſineſs, convulſions, lethargy, apoplexy, and continual obſtinate watchings, which cruelly torment the ſtudious, and afflict them with new diſeaſes; for what diſeaſes, what perturbations of the mind do not protracted watchings give riſe to? The great BOERHAAVE was ſix weeks without ſleep, after profound ſtudy and meditation; and at the ſame time ſo indifferent to every thing, that ſcarce any object whatever affected him (*u*). And which of you learned auditors, has not found by experience, that a ſlight and diſturb'd ſleep, a ſleep that ſcarce gives refreſhment, generally follows a day paſs'd in ſtudy. A ſlight irritation of the brain cauſes want of ſleep; from one more conſiderable ariſe convulſions and drowſineſs; from the greateſt of all a mortal apoplexy, which diſorder often puts an end to the lives of learned men. The reaſon is, that that part ſuffers which was guilty of the exceſs, and whilſt the ſtrength of the brain is relax'd by ſtudy, and freſh blood is forc'd into it, it muſt ſooner or later be quite overwhelm'd, eſpecially at the time that ſome new cauſe adds force to the blood that impells it; thence it has frequently come to paſs, that learned divines in preaching, and learned profeſſors in delivering their lectures, or diſputing, as was the caſe with the celebrated CURTIUS at Leipſick, expir'd on their very chairs; and LIVY the

(*u*) *Prælect. ad inſt.* t. 7. p. 145.

hiſtorian

hiſtorian has preſerv'd to us the hiſtory of king ATTALUS, who died in the aſſembly at Thebes, whilſt he was animating the Bœotians by an harangue to enter into an alliance with the Romans.

I ſaw a reverend paſtor, who on Whitſunday, after having preach'd long and with vehemence, whilſt he was diſtributing the hoſt to the people, was firſt ſeiz'd with trembling, then ſtammer'd, then was delirious, then fell down in an apoplectic fit, and continuing delirious ever after, though in an advanc'd age, lived for ſome months in a ſtate of infancy. The celebrated MORGAGNI likewiſe mentions a preaching monk, who was ſeiz'd with a violent apoplexy before his congregation, and quickly died; his vehemence of delivery conſpiring with a plethora to deſtroy him (*x*). A profeſſor at Berne, deeply verſed in the oriental languages, a man in the prime of life, but of indefatigable induſtry, not long ſince ſunk into a ſecond infancy, and a ſtate of idiotiſm, his brain being overflow'd by water, which ſtagnated in it (*y*).

We muſt not forget, in enumerating the injuries ſuffered by the brain from this overflowing of the blood, that the diſorder of the nerves which cauſes the hypochondriac diſpoſition, is increaſed; their little tubes being dilated and are conſtantly weaken'd, grow ſoft, and make leſs reſiſtance to im-

(*x*) *De ſedib. & cauſ. ep.* 3. §. 17.
(*y*) HALLERI *Element. Phyſiologiæ*, t. 4. p. 317.

preſſions, which is one of the chief cauſes of the hypochondriac diſorder.

Nor do the ſufferings of ſtudious men end here, ſince from another law, which holds equally in the animal œconomy, a fourth cauſe of the diſorders of the learned ſprings from an over violent labour of the mind; for the animal fibre is indurated by being uſed, the whole machine grows callous as it grows old; the parts that are exerciſed by labour become hardened in workmen; the brain of ſtudious men contracts a calloſity, ſo that becoming unequal to the taſk of forming ideas, they fall into a premature dotage; thus the too great ſoftneſs of an infant's brain, and the too great hardneſs of a brain occaſioned by ſtudy, are equally ill adapted to produce thoſe vibrations, without which the force of thought is loſt. Let the fibre be moiſten'd with water, or ſtiffened with lime and ſand, it in both caſes becomes equally incapable of performing its function. At firſt the memory is impair'd, as GALEN juſtly obſerves, and then reaſon itſelf is diſturb'd (z).

Nor is there any neceſſity that the mind ſhould meditate great and ſublime objects, to impair the ſtrength of the nervous ſyſtem; a too protracted uſe of the eyes has often given riſe to innumerable nervous diſorders; concerning which, the teſtimony of GUNZIUS is of the utmoſt authority (*a*). And every weak man muſt know by experience,

(z) *De locis affectis*, l. 3. c. 5.

(*a*) *Ad libellum* HIPPOCRATIS *de humor.* p. 211.

how

how much too great a uſe of the eyes weakens the head. Of this I have already given an example, and have often found it by experience; for when I contemplate any object a conſiderable time, after the fit of a fever, or any other diſorder, and before my health is quite recovered, I am ſeiz'd with a vertigo, a ſickneſs in the ſtomach, and a diſagreeable liſtleſſneſs of the whole body.

In order to vindicate literature from the charge brought againſt it, you will doubtleſs object, that many men of profound learning have liv'd to the moſt advanc'd age, and retain'd their powers both of mind and body unimpair'd to the laſt. I have heard of many, I have myſelf ſeen more; nor can either you or I ever forget that truly illuſtrious man, that man of univerſal learning, who as he was worthy of it, enjoy'd general love and veneration; who was the ornament, honour, and delight of this academy for above fifty years, and whom we all with equal wonder and ſatisfaction ſaw enter upon his 90th year, without either his reaſon, or his ſenſes being in the leaſt impair'd. But all are not equally happy, and there are few men endued with ſuch ſtrength, both of mind and body, as to undergo ſuch labours with impunity, if even thoſe can be ſaid to undergo them with impunity, who attain to that ſtage of life, which they perhaps would have greatly exceeded, had they liv'd in a different manner. Some men are by nature inſatiable in drinking wine, others are born cormorants of books, and never

glutted with the acquiſition of learning: nor ſhould it be paſs'd over in ſilence, that almoſt all the learned men, who are look'd upon as its maſters by the human ſpecies, all liv'd to a great age; as HOMER, DEMOCRITUS, PARMENIDES, HIPPOCRATES, PLATO, PLUTARCH, Lord BACON, GALLILÆO, HARVEY, WALLIS, BOYLE, LOCKE, LEIBNITZ, NEWTON, BOERHAAVE. Can it then juſtly be infered, that violent exercifes of the mind are not hurtful? Take care how you draw ſo falſe a concluſion? But, as I ſaid a while ago, ſome men are born with happy conſtitutions for meditation, and perhaps that excellent conſtitution of the fibres, productive of longevity, is the ſame that produces great geniuſes;

Mens ſana in corpore ſano,

A ſound mind in a healthy body.

and conſequently the great men, whom I have juſt mention'd, owed their reputation more to their extraordinary genius, than to induſtry and application; and prevented the ill effects of their ſeverer ſtudies, by allowing themſelves intervals of leiſure, by taking proper exerciſe, and by the diſſipation both of buſineſs and amuſement. Nor did they lead the life of abſtracted ſtudents, a ſpecies of men little known to the ancients, and who took their riſe firſt at the declenſion of literature, were renew'd at its revival, and may be properly compar'd to the Indian fakirs; for both bid farewell to the human race, and both of their own accord, and generally without any emolument to ſociety,

ſociety, emaciate and inflict auſterities upon themſelves; the former by the ſun, by cold, by nails, by chains, by whips; the latter by books, manuſcripts, coins, monuments, and almoſt all by inaction, and the want of bodily exerciſe. This is another, and a moſt prolific ſource of the diſorders which afflict men addicted to ſtudy; for the human machine was form'd and intended for action by the ſupreme artificer; therefore health is inſeparable from action, which will be eaſily conceiv'd by whoever examines the human body with attention.

It conſiſts of containing and moving veſſels, contained and moved fluids: if the fibres or veſſels have a proper tone, if the fluids have a proper conſiſtence, if the motions, by which they ſhould be continually agitated, are neither too violent, nor deficient, we enjoy a good ſtate of health. But it ſhould be taken into conſideration, that motion is here the chief agent, for, that alone being chang'd, the whole ſtate of the ſolids and fluids is chang'd likewiſe: if it be increaſed, the ſolids grow harder, and the fluids are compreſs'd; if it be diminiſhed, the fibre becomes relaxed, the denſity of the blood is leſſened, for the whole body is form'd of a chyle, which is ſofter and lighter than any part of the body, either ſolid or fluid, whoſe ſmall particles a continual motion unites and ſtrongly compreſſes; and if this motion ſhould fail, the parts muſt prove deficient in their due firmneſs.

But the heart is the ſource of all the motions in the animal machine, the principle which puts the whole maſs of fluids in motion, but is not alone ſufficient for that purpoſe; wherefore nature has given it many helps, which never diſcontinue or remit, but the circulation becomes ſlower, and diſeaſes ariſe from the motion of the fluids being retarded. The chief of theſe helps is the muſcular motion, whoſe extraordinary force in quickening the circulation, the moſt ignorant ſurgeon every day diſplays to the eyes of all ſpectators, by an eaſy experiment, when upon opening a vein he bids the patient move ſome cylindrical inſtrument round about in his hand, in order to accelerate the emiſſion of the blood: nay, every man may eaſily perceive in himſelf, how much the quickneſs of the pulſe is increaſed by the motion of the body; and theſe are the effects of motion, it ſharpens the appetite, it ſtrengthens the fibres, keeps up a due temperature of the fluids, promotes all the excretions, fortifies the mind, and gives a pleaſing ſenſation to the whole nervous ſyſtem; whereas by too great ſloth, the muſcular ſtrength is firſt deſtroy'd for want of practice; and from a neglect of exerciſe there ſprings an impotence of motion: the circulation which is carried on only by the ſtrength of the heart and the veſſels, and deſtitute of external helps, firſt languiſhes in the moſt minute veſſels, and then in every part of the body; the heat decreaſes, the humours ſtagnate, and contract

tract a vitious diſpoſition; for ſome of them loſe part of their denſity, others part of their tenuity, and they all become glutinous, and of conſequence unfit for ſecretions; therefore what ſhould be ſecreted is retain'd, the body is loaded with a maſs of adventitious humours, it is deſtroy'd by their acrimony, the vigour of life is benumb'd, the ſtrength declines, the blood is diſſolved to water; hence ariſes a dropſy, a diſorder in a manner epidemical to men of learning, by which the brain is often affected. An inſtance of this I lately ſaw with concern, in an eminent man, whoſe caſe I diſcover'd too late, and who not by literary purſuits, but other exerciſes of the mind, and total inaction of body, had broke a conſtitution which was once robuſt *(b)*.

Thoſe parts ſuffer the moſt, which having but weak ſolids, they want external helps more than any others; hence thoſe organs are moſt affected by inaction, which, being contained in the abdomen, perform the firſt digeſtion of the aliments: the

(b) In ſtudious men, who lead a ſedentary life, whilſt they grow pale with poring over books, an apoplexy often ariſes from ſuch a cauſe; but it comes on ſlowly and gradually. For the firſt ſymptom is languor, and a love of indolence; then the underſtanding begins to grow dull, the memory to flag; they become ſleepy, ſtupid, and often continue a long time in that ſtate before their death. I have ſeen, and not without the greateſt compaſſion, men of the moſt profound learning, and who had deſerv'd highly of the republick of letters, who, as it were, ſurviv'd themſelves above a twelvemonth in a ſtate of total oblivion, and at laſt died of apoplexy. VAN SWIETEN, tom. III. p. 263.

ſtrength of the ſtomach is diminiſhed, the nature of the gaſtric fluid is chang'd, the aliments make a longer ſtay in it, and, not being ſufficiently ſubdu'd by the animal force, they go through their ſpontaneous changes which they would have undergone out of the body. Moſt vegetables retain their tartneſs, which, by vellicating the nerves, occaſions pains and convulſions; acid eructations ariſe, the cardia ſuffers pain, the throat is parched, and the teeth blunted. On the contrary, both fleſh and eggs rot, and fat aliments grow rank: hence proceed putrid eructations, immoderate thirſt, and continual fluxes; digeſtion is always difficult, troubleſome and malignant; the aliments ceaſe to afford nouriſhment, nor do they any longer repair, but irritate and weaken.

The exhaling veſſels no longer pour forth a dewy mild, and ſaponaceous lymph, but they throw out a thick glue, which affects the ſick with a conſtant pain and ſenſe of a heavy weight, and of cold at the ſtomach, and creates the utmoſt loathing. The conſequence is the ſame when the inteſtines, being of the ſame ſtructure with the ſtomach, ſuffer the ſame injuries: the action of reſpiration firſt begins to fail, whoſe alternate compreſſions, whilſt it is accelerated by the muſcular motion, compreſs and ſtrain all the viſcera of the abdomen; their irritability is loſt, the body is generally coſtive; there is here likewiſe accumulated, a troubleſome phlegm, the prolific mother of diſ-

eaſes

caſes. Thus it once happen'd to the celebrated JUSTUS LIPSIUS, profeſſor of hiſtory at Leyden, who being long ill, and under the care of his illuſtrious colleague and friend HEURNIUS, found no relief till he had voided a ſubſtance reſembling the inteſtines both in figure and colour; it was a tough and viſcid phlegm, gradually collected in the whole tube of the inteſtines, through a ſedentary life waſted by ſtudy; and this phlegm, turning to putrefaction, made a jakes of the whole body. The fomes of the diſeaſe being thus purg'd off, he was reſtor'd to health *(c)*.

The collected excrements compreſs with their bulk the neighbouring parts, irritate the inteſtines by their corruption, and by abſorbing the putrid matter infect the whole maſs of blood. From all theſe cauſes put together ariſe thoſe excruciating pains in the bowels which often torment the ſtudious, and are with difficulty cur'd, as they are perpetually renew'd by errors in diet *(d)*. Hence that troubleſome flatuelency, ſo hurtful to ſedentary men, which torments the learned a thouſand different ways, and often paſſes for other diſorders.

The inteſtines are not only affected, but the functions of the neighbouring parts are diſturb'd, as well from the violence of the compreſſion as from their own diſeaſes; the

(c) ADAM *vitæ medicorum*, p. 372.

(d) We meet in the medicinal diary with an account, very well worth reading, of a ſevere colick, attended with other bad ſymptoms, and occaſion'd by intenſe ſtudy and nocturnal lucubrations. Tom. I. p. 352.

pancreatic

pancreatic juice grows vapid and ſtale, the functions of the ſpleen are vitiated, the repoſitories of the bile are much diſturb'd; by its ſtagnation it loads the liver, forms obſtructions in it, thickens and grows hard itſelf, and flows ſlowly to the inteſtines; whence their diſorders, eſpecially thoſe of the jejunum, and vices of the chyle increaſe; being ſcarce able to paſs through the narrow neck of the cyſtic duct, it often concretes into a ſtone, and occaſions thoſe ſevere colics with which the celebrated IGNATIUS, founder of the Jeſuits, was formerly afflicted, and with which the learned are often tormented *(e)*. If at length by ſtagnating it putrifies, it then erodes, ulcerates, inflames, and aſſumes the appearance of all the innumerable diſorders of the liver, and produces inconceivable anxieties. Theſe are likewiſe caus'd, though with leſs danger, by that cruel diſeaſe call'd the hypocondriac; the firſt ſpecies of which, mention'd above, and call'd the nervous, is occaſion'd by exceſſive labour of the mind; the other, I mean the abdominal ſpecies, ariſes from a diſturb'd circulation in the abdomen. With both theſe diſorders the learned are afflicted, and therefore ſeldom or never live free from this evil; and, whilſt one of theſe adds force to another, they are ſeldom entirely cur'd of them *(f)*.

Con-

(e) VAN SWIETEN, tom. III. p. 87. ex COLUMBO.

(f) Experience ſhews us that men of learning, though naturally of a chearful diſpoſition, become at laſt fix'd, ſilent, pale, emaciated, and ſtrangely troubled with the hypochondriac

Conſidering they occur ſo frequently, it is hardly neceſſary to give examples; but if I were to cite examples, the firſt that would occur to my mind would be that of the illuſtrious SWAMMERDAM, that ſagacious inquirer into nature, who was ſo full of atrabilary humours, that he ſcarce vouchſafed to anſwer thoſe who ſpoke to him, but look'd upon them with an unalter'd countenance; and, when he took his ſeat as profeſſor, ſat with a face of aſtoniſhment, and made no anſwer to the objections of his opponents. Finally, having, before his death, waſted away with a phrantic melancholy, he burn'd all the manuſcripts he had by him in a fit of madneſs: being reduced in appearance to a ſkeleton and the mere figure of a man *(g)*, he died at length of a conſumption.

It has indeed been obſerv'd, that this ſpecies of melancholy in ſome meaſure promotes learning, by increaſing the penetration; for, whilſt melancholy men are intent upon one idea only, the mind contemplates this object alone, and conſiders it on every ſide; nor is it diſtracted by other purſuits. But whoever proceeded to this pitch of madneſs, as to deſire to purchaſe an increaſe of diſcernment at ſuch a price? Of what advantage is ſcience without health? He knows too much, who is render'd unhappy by his knowledge.

hypochondriac diſorder, which generally tyrannizes over ſedentary people. *Ant.* FELICI *diſſertazioni epiſtolari*, p. 203.

(g) BOERHAAV. *ad inſtitut.* §. 896. tom. VII. p. 275.

It

It cannot indeed be denied, that there are men whom nature has endow'd with a Milonian ſtomach, and inteſtines of iron, who can bear with impunity the labour of the mind, bodily inaction, and exceſſes of gluttony. But are they therefore more happy? By no means; for then the veſſels are overwhelm'd by the load of humours, the cellular membrane ſwells with fat, the viſcera are preſs'd on every ſide, the whole habit grows turgid, they become heavy and indolent, the ſlighteſt motion puts them quite out of breath, and they ſweat all over; at laſt they die before their time, either of apoplexy, a ſuffocating catarrh, or other diſeaſes occaſion'd by plethora: and it has been juſtly obſerv'd, that too ſtrong a ſtomach has often prov'd fatal to the learned *.

There is no part of the body which is not at laſt affected by inaction; for the blood being vitiated, all the parts, which it waſhes, catch the infection ſooner or later; the lungs are over-whelm'd with a mucous ſubſtance, this gives riſe to a cough, a ſhortneſs of breath, an aſthma, an impoſthume. This the illuſtrious TRIGLANDUS unhappily experienc'd, who, having contracted a bad habit of the body by a ſtudious and ſedentary life, from which BOERHAAVE himſelf diſſuaded him, waſted away with an impoſthume and died, after having ſuffer'd the moſt excruciating torments *(b)*

* LANCISUS *de mortu ſubit.* l. 1. c. 22.

(b) MARKII *Oratio funebris in obitum* TRIGLANDII. Leyden, 1705.

By

By the mucous matter being harden'd the lungs of SWAMMERDAM were turn'd into a quarry, and he ſpit up ſmall ſtones a long time before his death.

That the ſtone, and other ſeverer diſorders of the bladder, are the fruits of too aſſiduous an application to learning, is prov'd by the ſad experience of HEURNIUS, CASAUBON, BEVEROVICIUS, SYDENHAM, and many others, amongſt whom may be reckon'd the illuſtrious exile of Geneva, to whom Britain now boaſts of having afforded an aſylum †.

Whilſt all the excretions are diſturb'd, the chief of them all, namely cuticular perſpiration, is not free from diſeaſe. As perſpiration, is greatly promoted by muſcular motion, which both prepares humours for ſecretion, and gives ſtrength to the exhaling veſſels; ſo it is greatly interrupted by the want of that motion; the humour that ought to be excreted is retain'd, and pollutes the whole maſs of the fluids, and gives riſe to rheumatic or catarrhous diſorders and a troubleſome phlegm. Of this HORACE complained long ſince, and with this complaint almoſt all men of learning are afflicted; for they can ſcarce read or write for any time, but they are immediately troubled with a ſlight running of the noſe, or ſeiz'd with a cough.

From the ſame ſource are derived thoſe irregular fevers, which often occur without

† The famous ROUSSEAU; but he has ſince quitted the Britiſh aſylum, and returned to France.

any

any viſible cauſe, whilſt the unperſpirable humours, which have been generated by the defect of the ſtomach, and the want of motion, are unable to paſs the cutaneous veſſels.

Perpetual reſt is alone able to torture thoſe nerves, which have been weakened by the labours of the mind; and it often quite deſtroys them, even in thoſe who equally give themſelves up to indolence both mental and corporeal. For the nervous ſyſtem is the laſt work of the human machine, and if any function fails, the nerves are immediately affected; ſo that often from their defect, whenever it appears, there reſults a well-grounded ſuſpicion of a diſeaſe in the ſtomach, or in ſome other part. They are therefore vitiated in the learned for two reaſons; for, being plac'd between the mind and body, they are puniſh'd though innocent, let which of the two be in fault; nor do they however go unrevenged; for the injuries they ſuffer on one part they carry over to t'other, and thus, by a vicious circle, the mind hurts the body, and the body impairs the mind, and they with one accord injure and weaken the nerves.

The ſeminal fluid, which has been thought by ſome great men not to be very different from the nervous liquor, is likewiſe depriv'd of its force; and upon this principle, and from an accurate conſideration of what each part in a father contributes to the formation of a ſon, it perhaps is not badly accounted for, why ſtrong and illuſtrious ſons

are

are ſeldom the offspring of illuſtrious men: for the *punctum ſaliens* is contaminated at the firſt moment of life, whence it receives an injury which is not afterwards to be repair'd by any art; and whilſt the mind of the father was entirely given up to meditation, and his corporeal functions totally neglected, the vivifying liquor was perhaps defrauded of that part of elaboration which it ſhould have had from the brain of the embryo.

From that general laxity of the fibres, which is demonſtrated to the ſenſes themſelves by the ſoftneſs of the muſcles, by the force of the artery, and by that laxity of the gums which throws out ſound teeth without any pain; from that general laxity, I ſay, ariſes that weakneſs which oppreſſes ſo many learned men, and which I lately lamented to ſee, whilſt, as a friend and phyſician, I ſat by our beloved ALPHONSUS (*i*), to whom the wiſhes of the public had promis'd the age of NESTOR; and all the hopes I had of his recovering his health were immediately baniſh'd, by a weakneſs greater than any I remember ever to have ſeen, and which the Herculean labours of his mind had brought upon a thin body. How great and irrepairable a loſs was then ſuſtain'd by religion, virtue, the church, the city, his unfortunate family, and the youth of this academy!

(*i*) JOH. ALPH. ROSSET, theologiæ profeſſor, & academiæ, hoc tempore, rector.

What

What a man, what a colleague, what a friend have we loſt, illuſtrious profeſſors! one who, as EUPHRATES of old, was remarkable for the greateſt ſanctity of manners, for the utmoſt care in the diſcharge of all the duties incumbent upon him, which were many in number; one whoſe complaiſance was equal, who was intirely free from auſterity, whoſe preſence excited reverence, and not dread, for he was ſevere upon vices, not upon men; whoſe learning was extenſive, whoſe diſcourſe was copious, various, and, above all, pleaſing, and yet not without a Platonic ſublimity; one, in ſhort, who was capable of perſuading and working upon ſuch as were moſt averſe to his documents: having liv'd in the utmoſt veneration, he left behind him the higheſt regret for his loſs. But to return to our ſubject from this ſad digreſſion.

Thus have I treated of the two firſt cauſes of the learned; others remain ſtill to be ſpoken of; and the firſt that occurs, whilſt I am upon the ſubject of inaction, is the very poſture of conſtant ſitting, with the body ſtooping, and the legs bent; for this both hurts the lower extremities, and, by obſtructing the viſcera of the abdomen, ſoon occaſions all ſorts of diſorders ariſing from indigeſtion: and thoſe learned doctors prudently conſult their health, who indulge their meditations, not indeed ſtanding, for that poſture is not without its inconveniencies, but walking. And this is one of the bad effects of ſitting, that it greatly obſtructs

ſtructs the paſſage of the blood in the abdominal veins, which makes it ſtagnate at the anus, where it meets with leſs reſiſtance, and cauſes thoſe ſhocking piles that torment ſo many literati, and, though praiſed by ſome, certainly do much more harm than good.

Nocturnal lucubrations, which are hurtful upon many accounts, muſt have their place amongſt the cauſes of diſorders; for whilſt a great part of the night is ſpent in ſtudy, ſufficient time is not allow'd for ſleep; nor does a gentle ſlumber ſucceed meditation; a circumſtance which I have already lamented: for the oſcillations of the fibres of the brain ſtill continue, and that full eaſe of the internal ſenſes is wanting which alone is capable of repairing our loſt ſtrength. They likewiſe pitch upon an unreaſonable time for ſleep; for nature has aſſigned the firſt approach of night as the proper time for beginning to repoſe; the night invites to ſleep as well as the unwholſome air, and to this end its darkneſs and ſilence contribute: beſides, the nocturnal air is cold and moiſt, and, when the ſun retires, moſt animals feel their ſtrength diminiſh'd, and night forces ſome of them to ſleep even againſt their inclinations, as it does many plants.

The night air is ſo unfavourable to ſtudy, that the celebrated VAN SWIETEN knew a gouty man, in whom the ſlighteſt application of mind, and even the reading of a letter after ſun-ſet, occaſion'd a fit of the

gout. Nor ſhould we forget that ſtudy forces the blood into the brain, and that nothing can be more dangerous than to ſtudy in bed; for both ſleep, and the poſture of the body in ſleep, increaſes the quantity of blood in the ſkull.

Therefore nocturnal ſtudies produce all thoſe diſorders which the want of reſt gives riſe to; the organs of ſenſe are principally affected; their ſtrength is exhauſted, the fibres are either worn or agitated by violent motions; hence ariſe an incoherent ſeries of thoughts, a luxuriant imagination, deliriums, dreadful head-achs, and, finally, a total privation of ſleep, ſcarce to be cur'd by remedies, and which often occaſions fatal diſorders.

The injuries of watching are increaſed by the ill effects of candles, which infect the air by their groſs vapour, ſo pernicious to the lungs, the eyes, and the nerves. It is, therefore, the higheſt advantage imaginable to go to bed betimes, and riſe early in the morning. *Aurora muſis amica:* Aurora favours the muſes.

The cloſe air, which they always uſe, is hurtful; but I ſhall ſpeak of the air hereafter. Nor ſhould their dirtineſs be forgotten, as ſome learned men, entirely neglecting the care of their bodies, and not at all ſollicitous about cleanlineſs, diſguſt others, and bring upon themſelves thoſe diſorders which proceed from obſtructed perſpiration: for how can that ſkin perſpire, whoſes pores are ſtopped up with dirt. Moſt of them are extremely faulty with reſpect to their teeth, which

which, being filled with putrid filth, and exhaling a moſt nauſeous ſtench, firſt infect all the adjacent parts, and the very ſaliva of the ſick perſon; ſoon after cauſe violent pains, and at laſt, falling before the time, leave the ſtomach deſtitute of the powerful aid of maſtication.

Akin to dirtineſs is the pernicious cuſtom of ſome, who, deaf to the calls of nature, defer going to ſtool, and ſuppreſs their urine a long time, to avoid interrupting their ſtudies; not reflecting that many dreadful diſorders ſpring from this ſource.

For by too long a delay the ſecreted humours become too putrid, are attenuated, irritate the inteſtines or the bladder, vitiate the mucous matter, and ſometimes occaſion grievous diſorders of the particular organ; the putrid matter being abſorb'd by the veſſels with which all the cavities of the body abound, pollutes the blood; and, which is ſtill worſe, the nerves become diſuſed to obey the ſtimulus; nay, they ſometimes, by too much tenſion, begin to grow paralytic; ſo that the expulſive force, for the voiding of excrements or urine, almoſt entirely ceaſes, and ſhould every day be renew'd by art. Whilſt the illuſtrious TYCHO BRAHE, riding in the ſame chariot with the emperor, ſuppreſs'd his urine, he pay'd for his ill-tim'd modeſty by death; and I even now have under my cure a man of learning, who by a long ſuppreſſion of his urine became unable to contain it; nor can he void it when he thinks proper, but it runs from him night and day by drops.

Retirement from all human ſociety is likewiſe hurtful to them; for man, whom nature made for man, ſhe intended alſo ſhould be benefited by ſociety.

But nothing renders ſtudy and application more pernicious than the ſadneſs that accompanies them: ſtudy is capable of clouding the temper of the happieſt man with melancholy: if real and external cauſes of grief are added to this, the mind, overwhelm'd with ſo many ſtrokes, at laſt ſinks under them, and in its own ruin involves that of the body. Anxious cares are likewiſe hurtful; ſo that I can hardly conceive how great men, whom the difficulty of their undertakings kept in unremitting meditation, and whom the uncertainty of events fill'd with continual anxiety, could go thro' with ſuch great undertakings. Nature endow'd CÆSAR, MAHOMET, CROMWELL, PAOLI, and ſome few more, with faculties which ſhe refuſed other mortals, and which, notwithſtanding, would ſcarce have enabled them to perform ſuch great exploits without the aſſiſtance of ſobriety and inceſſant action.

We ſhould not, however, imagine, that the learned alone deſtroy their health by mental labour; it is of no conſequence what the object is that engages the mind, if it applies a conſiderable time and with earneſtneſs, it waſtes both its own ſtrength and that of the body. Kings, ſenators, miniſters, ambaſſadors, and all thoſe concern'd in the adminiſtration of public affairs, are ſubject to the ſame unhappy fate which the learned deplore, if they labour with equal aſſiduity

aſſiduity in tranſacting public affairs, as the learned in peruſing books. But it is their happineſs, that, in the various buſineſs and diſſipation of their places, they are oblig'd often to quit their cloſets, and even againſt their wills are, by a ſalutary neceſſity, compell'd to take frequent exerciſe: the chief uſe of this is, that it admirably prepares the blood for the generation of freſh animal ſpirits, and in the ſame time it brings a greater quantity of blood to the ſecerning organs, and ſo reſtores what thought had exhauſted, and frames new inſtruments for the thinking mind. But nothing can force the ſtudious from their books, and they are quite enervated by inaction: to palliate which you will perhaps bring ſome examples of men who have liv'd to a great age, though they uſed but little or no action. There are but few men; but you will, I doubt not, bring many women. Take notice, however, that, though they had not much muſcular motion, they had many other helps, by which nature promotes the circulation of the blood, *viz.* an agreeable ſtirring of the paſſions, which excites, and does not deſtroy; a conſtant chearfulneſs and eternal loquacity, and other aſſiſtances of a ſimilar nature: they likewiſe uſe but little food. The caſe is quite different with the learned: they do not live with the ſame ſobriety; and therefore it is no wonder that they enjoy their health worſe than any other claſs of men.

Thus have I laid before you the chief cauſes, from which the diſeaſes incident to

the ſtudious take riſe; and I ſhould never make an end, were I to enumerate the inferior cauſes, which profeſſors have a bad cuſtom of aſſigning from their own invention: I ſhall therefore paſs by all the ſecondary cauſes. But there are men, truly learned, illuſtrious votaries of the muſes, who, beſides the diſorders that ſpring from too aſſiduous an application of mind, experience others, owing to the nature of the object that engages them. Anatomiſts often contract malignant fevers by breathing putrid air, and other diſeaſes from the corruption of the bile, from the matter in which their hands are conſtantly immerſed, a ſlight excoriation ariſing, or an inconſiderable wound, which ſometimes end in their deaths. Chemical experiments are attended with danger, and an acid ſmoke, of a very penetrating nature, would have kill'd the great BOERHAAVE, if there had not been at hand an alcaline ſpirit, which overcame the acid and expanded the compreſſed lungs. Botaniſts have been often hurt by the plants for which they have ſo ſtrong a paſſion. Theſe, and the like, rather relate to the diſorders of artificers, (excuſe the expreſſion); but this diſcourſe turns upon the diſorders which ſtudy brings upon ſome of the organs.

The firſt that offer are the eyes, which conſtant attention ſo fatigues, that I have often ſeen doctors who had not attain'd to their thirtieth year, and yet could hardly bear the light, eſpecially candle-light; and were ſcarce able to read a few pages without their eyes being ſuffuſed with tears, then

grow

growing dim, and at laſt quite incapable to diſtinguiſh any object. But the eyes are much ſooner and much more eaſily affected by reading at night; for there is not a man living who has not experienc'd, at leaſt once in his life, how much they ſuffer by the motion of light and the irritation of ſmoke.

Orators have diſorders peculiar to themſelves, which are of a very grievous nature: for however reading aloud may be of ſervice to the lungs, vehement declamation is hurtful: and how often do preachers or lawyers paſs whole days and nights in their ſtudies, when the lungs, unequal to the efforts of ſpeaking, are ſeverely injur'd. How much more happy are thoſe paſtors of the church, who cultivate learning, but are kept from their ſtudies by other avocations, being in this reſpect equally privileg'd with the phyſicians, whom the health of their fellow-creatures does not ſuffer to impair their own health by ſtudy. Happy likewiſe are all thoſe whom the nature of their buſineſs calls off from ſtudy; for though they are not thereby exempted from the labours of the mind, the change of their employments is however a great conſolation to them. But unhappy are thoſe preachers, who being exempt from other eccleſiaſtical functions, live only to ſtudy, and compoſe eloquent diſcourſes; unhappy thoſe lawyers, who are entirely taken up with managing and pleading cauſes; for their health is inſenſibly impaired by the life they lead, their throat, wind-pipe, and lungs, are irritated, heated, and inflamed; hence proceed catarrhs, hoarſe-

neſs, a broken voice, ſpitting of blood, a cough, a fever, great weakneſs, and at laſt a conſumption; and, whilſt they give light to others, they are extinguiſhed like the ſnuff of a candle, unleſs they take care of themſelves. This is what CICERO did, who, being told that he was beginning to be conſumptive, avoided pleading for two years, by the advice of his phyſicians; in which time he recovered his ſtrength and health, which had been greatly impaired (*k*).

Theſe, worthy auditors, are moſt of the diſorders that are occaſioned by too great an attachment to ſtudy, or a continued application of the mind to any object whatever; nor are we to imagine that all undergo the ſame ſufferings; much variety is here occaſioned by the various conſtitutions of men, by their different ages, and the diverſity of their external circumſtances. There are few or no bodies but what have ſome weak parts, which ſuffer the firſt attacks of every diſorder. He whoſe ſtomach is naturally weak, or who has rendered it ſo by living in a manner not ſuited to his conſtitution, will firſt complain of pains in the ventricle, whilſt the nerves, which he received ſtrong in a weak body, are ſtill in a good ſtate. On the other hand, he who is troubled with

(*k*) The diſorders of orators and ſingers are the ſame; but the bodies of theſe being open'd, have often ſhewn inflammations, ſuppurations, ulcers in the lungs; nay, the Illuſtrious MORGAGNI ſaw a young man that had an excellent voice, whoſe wind-pipe and throat being affected, could ſwallow nothing, and, whilſt he attempted to ſuck down the yolk of an egg, was ſuffocated and died. *De ſedib. & cauſ.* tom. 1. p. 228.

weak

weak nerves, but has a good ſtomach, will long ſuffer all ſorts of nervous diſorders, the digeſtion remaining unhurt.

He in whom the muſcular or cellular fibres are relaxed, will complain of laſſitude, drowſineſs, weakneſs, ſwellings, his head and ſtomach remaining unhurt. Another will ſuffer all the diſorders incident to the lungs, who received them from nature not indued with a proper degree of ſtrength. In theſe the vaſcular ſyſtem of the head is weak, they are troubled with inceſſant headachs, or bleeding at the noſe, to which other ſtudious youths are obnoxious, their intenſe application to ſtudy forcing the blood upwards. Finally, every man, according to the part affected with weakneſs, is liable to complain of ſome diſorders more than others.

Even ſtrength itſelf has its diſadvantages; for whilſt robuſt and vigorous young men devote themſelves to ſtudy with unbridled ardour, the power of the ſoul, being rous'd and ſtrongly ſtimulating the whole ſyſtem, ſo increaſes the action of the ſolids, that there ariſe diſeaſes occaſion'd by too violent a motion, ſuch as inflammations and malignant fevers; and when theſe diſorders are once begun, they return for ſome years, till the ſtrength being entirely broken, chronical diſorders ſucceed, according to the common fate of mankind.

A great deal depends upon the age, with regard to which we ſhould not be ſo indiſcreet as to bear too hard upon youth, nor exact from them over great taſks; for nothing

thing ſo totally exhauſts and deſtroys the ſtrength. I have often found boys of a penetrating genius, tinctured with learning beyond what could be expected from their years, and always with ſome concern, as I ſaw how it would end; becauſe our youthful days ſhould be conſecrated to exerciſe, and to acquiring ſtrength by its means, and not to ſevere ſtudy, which obſtructs both vigour and growth.

There have been examples of boys, who before they had paſs'd their ſixth year, appear'd by their ſudden growth to be men: the laſt example of this ſort, we meet with in the memoirs of the French academy: but to liſten to the ſequel: the underſtanding continued that of a child in a well ſet body, and, the ſtrength being ſo ſoon exhauſted, could ſcarce ſupport a life of twelve years. Whilſt the powers of the mind, or in other words, the ſtrength of the brain ſurpaſs the age, nature, which is unequal to many taſks, forgets the body; the whole machine is overwhelm'd with languor, the fibres want ſtrength, and ſevere diſorders bring on an untimely death. JOHN PHILIP BARATHIER lately afforded us an illuſtrious and well known example of the truth of this obſervation. You all lament another PHILIP, whom you knew, and whom I regret not having known more intimately, who being from his early infancy endowed with a penetrating genius, and addicted to ſtudy at that time of life, which nature intended ſhould be dedicated to ſtrengthening the body, was attack'd by the ſevereſt diſorders,

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and could recover his health only by the moſt abſtemious diet, and by totally relinquiſhing his ſtudies: but ſoon, unmindful of his weakneſs, he by an untimely death paid for his premature learning. May a better fate be reſerv'd for LE FANCOIS, a youth of fourteen, who, as I hear, has acquir'd a high reputation amongſt the French, by his genius and extraordinary erudition.

I have often ſeen with concern the children of peaſants loaded with labour above their age and ſtrength, but a ſtill worſe error is committed, when the mind of a child is forc'd to apply before the time, and beyond its abilities; and this is generally productive of the worſt conſequences, for the powers of the mind brought to maturity by a pernicious art, are ſhort-liv'd, and ſoon grow old: and who has not with grief ſeen children of the brighteſt hopes, hardly give proofs of common underſtanding, when grown up? The earth is a long time prepar'd to admit ſeed, and before it is ſown, receives that ſtrength, which afterwards impregnates it with fertility from the ſun, the air, and the plough; then the grain ſprings up, vegetates, flouriſhes, and brings good fruits to maturity.

But if early ſtudies are hurtful, it is no leſs dangerous to attach oneſelf to ſtudy in an advanc'd age; for habit becomes gradually a ſecond nature when we begin from our tender age; but at an advanc'd period it is no longer ſuſceptible of new habits; and the fibres of the brain accuſtom'd to reſt, are torn before they can receive new

and

and regular motions. I not long ſince with difficulty cur'd a native of this country, who in his fortieth year laying aſide mercantile buſineſs, to pore night and day over the works of NEWTON, CLARKE and LOCKE, had totally diſorder'd his brain. He recovered his health by remedies, by a ceſſation of ſtudy, and amuſing converſation; but the joy was but ſhort-liv'd, for by again dipping into the ſublime, geometry, and metaphyſical abſtractions, he once more loſt his ſenſes *(l)*.

Nor is it leſs laborious to continue our accuſtom'd ſtudies too long, when old age approaches. The ſoul that animates our bodies, is indeed immortal; but ſo long as it is connected with a feeble frame, it muſt be influenc'd by its nature.

Gigni pariter cum corpore, & una
Creſcere ſentimus, pariterque ſeneſcere mentem.

Beſides, 'tis plain, that ſouls are born and grow,
And all by age decay, as bodies do.

CREECH'S Lucretius, book 3.

The labours of the mind ſhould therefore be retrench'd, as the declining powers of the body direct; the latter becomes incapable of bearing the ſame burthens, the former of purſuing the ſame ſtudies, which in this period of life ſooneſt break the conſti-

(l) It often proves hurtful to men of learning themſelves, when in an advanc'd age they purſue a new ſtudy; for this gives riſe to a new order of ideas, which receives no aſſiſtance from all the traces before left upon the brain: new fibres muſt receive new motions, a laborious work to the organ already debilitated, and which often throws men of firſt-rate capacities into lingering diſorders.

tution

tution, and deſtroy the brain; and are of ſo little uſe, that old men conſult their glory no leſs than their health, by retiring betimes.

Solve ſeneſcentem mature ſanus equum, ne
Peccet ad extremum ridendus, & ilia ducat.

Looſe from the rapid car your aged horſe,
Left in the race, derided, left behind,
He drag his jaded limbs, and burſt his wind.

FRANCIS's Horace, lib. 1. ep. 1.

But it grieves me, reſpectable auditors, that you ſhould be obliged to hear of ſo many diſorders, and I to give an account of them; ſo I ſhall ſay no more of ſo melancholy a ſubject, but proceed to treat of the remedies for the ſeveral diſeaſes.

What lover ever had eyes to ſee the blemiſhes of his miſtreſs? What lover ever ceas'd to admire his miſtreſs's beauty? This is another pernicious effect of learning; it occaſions a ſourneſs of temper. Philoſophers think themſelves wiſe in every thing; 'tis a difficult matter to perſuade them that they every day injure their health by their manner of living; you may adviſe, intreat, and even ſcold them, it will be all to no purpoſe; they impoſe upon themſelves a thouſand different ways; ſome by too great a confidence in their ſtrength, others by the hopes of impunity from the puniſhments being delayed; others again by the deceitful defence of the power of habit, and others again by the ſtill more deceitful example of other men's good luck; others by other motives; and all, by that ſteady adherence to their purpoſe, which they think becoming

becoming in a man of virtue, are ſo blinded, that they are not affected by future ſufferings, and hardly even by thoſe they have already incurred. I ſhall not however neglect my duty as a monitor, and if I ſhould fail of ſucceſs, it will be at leaſt ſome merit to have attempted in a deſign of ſo much utility. Preſervatives are to be offered to ſuch of the ſtudious as are ſtill in health, and remedies to thoſe who have impair'd their conſtitutions.

The ſure and only preſervative is for the mind to be often unemploy'd, and the body to labour. This does not hold with regard to all men of learning; there are ſome whoſe meditations ſhould be diſturb'd upon no account whatever. DESCARTES frames a world, NEWTON revolves the whole ſyſtem of the univerſe in his mind. MONTESQUIEU makes laws for all nations; let no body interrupt them, let all nature be ſilent, they labour for us, let the good of the people be the ſupreme law; they were born to cultivate thoſe ſtudies. But how few are there, whoſe labours are of ſuch conſequence? Moſt ſtudious men loſe their time, and break their conſtitutions to no purpoſe; one makes a collection of common-place topicks, another embelliſhes ſuch as are thread-bare, a third anxiouſly inveſtigates matters of no utility, others make trifles the ſubject of laborious reſearches, and all are equally unmindful of the unprofitableneſs and danger of their purſuits. But be vigilant for their good; knock at their doors; rouſe them from their lethargy;

make

make them, whether they will or no, lay aſide their ſtudies for hours together, and let their minds not be totally abandoned to idleneſs, but recreated by gentle eaſe, whilſt their ſtrength is reſtored by exerciſe. At the beginning of my diſcourſe I diſplayed the advantages of exerciſe: let it therefore be obſerved as an inviolable rule by the learned, to dedicate an hour or two every day to walking, that the lungs may be recreated by a free uſe of the air, that the ſtagnant humours may be thrown off, perſpiration renewed, the limbs ſtrengthened, and the nerves repaired. BOERHAAVE choſe for this purpoſe the hour before dinner. Nor is walking alone ſufficient. I would likewiſe recommend riding, which acts admirably upon the head and lungs, and above all upon the abdominal viſcera, by repeatedly agitating them; as likewiſe all the other exerciſes, which were carefully cultivated both by the ancients and our anceſtors; but which we, to our great detriment, have neglected. Let us not forget HERODICUS, a man of learning, endowed with extraordinary intellectual faculties, but the moſt infirm of all mortals, who by exerciſe alone ſo confirmed his health, that he lived entirely free from diſorders to a hundred years of age, and compoſed a treatiſe upon the gymnaſtic art. Let us not forget SOCRATES, the wiſeſt of mankind, who thought it worth his while to learn this art. STRATO, being troubled with the ſpleen, had recourſe to exerciſe, which cured him. HYSMONÆUS, being afflicted with a

weakneſs

weakneſs of the nerves, had recourſe to the olympic games, and by that exerciſe overcame the diſorder. Sailing ſhould have its ſhare of praiſe, amongſt other ſorts of exerciſe, whoſe power in removing the obſtructions of the viſcera, throwing off the bile, reſtoring the lungs, renewing perſpiration, and ſtrengthening the fibres, the ancients were well acquainted with: and it has lately been demonſtrated by the illuſtrious GILCHRIST, and was likewiſe preferred to all other ſorts of carriage by AUGUSTUS CÆSAR, who, when he had any occaſion to travel, choſe rather to go by ſea than otherwiſe, if it was poſſible. AUGUSTUS CÆSAR may in many reſpects be compared to the ſtudious and learned; "eloquentiam enim ſtudiaque liberaliora ab ætate prima & cupide & laborioſiſſime exercuit; & graves valetudines per omnem vitam expertus eſt; & diſtillationibus, & rheumaticis doloribus, & calculo obnoxius vixit, & præcordiorum inflatione aliquoties tentabatur; litteratis vero ſapientior;" "for he cultivated eloquence and the liberal arts from his early youth with taſte and diligence, and was during his whole life a valetudinarian; he was troubled with catarrhs, rheumatic pains, and the ſtone, and was ſometimes likewiſe attacked with an inflammation of the parts about the heart; but, being more prudent than moſt men of learning," *he took great care of his valetudinary conſtitution* (*m*)." Riding in an eaſy chariot is of

(*m*) SUETONIUS *in vita* OCT. AUG. *cap.* 82.

little

little ſervice; of ſtill leſs the eaſy ſuccuſſions of the ſeveral machines which have been invented by modern induſtry for moving the ſick about in their chambers; but I ſet a high value upon all thoſe plays or diverſions which oblige a man to exerciſe both his arms; ſuch, for example, are ſhuttle-cock, and others of the like nature.

Do not be concerned, my worthy auditors; the time which you devote to recreation is not loſt to learning; you will preſently apply to your ſtudies with renewed alacrity, and, whilſt your ſtrength and health are preſerved, a long life will abundantly recompenſe the hours dedicated to the care of the body. In leiſure likewiſe thoſe ſublime ideas may riſe, which the obſcurity of your muſæum would for ever have ſuppreſſed, *for lively and vigorous geniuſes make the more noble efforts, the more intervals of leiſure they allow themſelves* (*n*). I have a particular friend, who, in his walks in the country, has compoſed books that will immortalize his name; *for the ſouls of thoſe who walk under the canopy of heaven are exalted:* and PLINY the younger obſerves, *that it is ſurprizing to what a degree the ſoul is rous'd by the agitation and motion of the body:* cloſe confinement contracts the body, the oil of the lamp, as it were, infects the thoughts by its ſmell, and by too intenſe ſtudy we become incapable of application. PLUTARCH has an ingenious obſervation, that as plants are nouriſhed by moderate watering, but overwhelmed by too much, ſo the ſoul is improved by

(*n*) VALERIUS MAXIMUS, lib. 3. c. 6. p. 140.

moderate ſtudies, but overpowered by exceſſive ſtudies (*o*). Take my advice therefore, you men of learning; you will one day repent your auſtere retirement; but it will be too late to look for a remedy when the danger is at hand; and foreſight becomes the wiſe man: don't think to excuſe your dangerous errors; the experiment is not made upon a vulgar ſoul, the life of a man of learning is at ſtake; neither alledge, in excuſe for yourſelves, the examples of others; nor your own ſtrength, which you break every day; nor vain cuſtom, for we can never uſe ourſelves to a diſeaſe; nor the impunity of your early years, for reiterated ſtrokes will break what one alone could not. Lay aſide, therefore, the agitations of your minds, and exerciſe your bodies; for exerciſe is of ſo much ſervice to the mind, that HOFFMAN (*p*) has by its means made ſtupid men attain to a degree of underſtanding; and do not deſpiſe the health of the body, with the aſſiſtance of which the labour of the mind will become more ſupportable; for the powers of the mind grow dull, if the ſtrength of the body is in a wavering unſettled ſtate. Phyſicians have power over ſouls; and DESCARTES has juſtly obſerved, "Animum adeo a temperamento & organo-
"rum corporis diſpoſitione pendere, ut ſi
"ratio aliqua poſſit inveniri, quæ homines
"ſapientiores & ingenioſiores reddat quam
"hactenus fuerit, credendum ſit illam in
"medicina quæri debere." "That the

(*o*) *De education. pueror.* cap. 12.
(*p*) *De motu opt. corpor. medicin.* § 9.

"ſoul

" ſoul depends ſo much upon the conſtitu-
" tion and diſpoſition of the corporeal or-
" gans, that, if there could be a method
" found to render men wiſe and ingenious,
" it ſeems probable that it ſhould be ſought
" in phyſick (*q*)." There is a regimen calculated for the ſtudious, of which I ſhall now give a ſuccinct account (*r*).

HIPPOCRATES in three words expreſſes the whole alimentary diet of all ages, all ranks of men, and all conditions, ὡς ὁ πονος ἐστι καὶ ἡ τροφη, food ſhould be as labour; for, as he ſays elſewhere, if the aliments are overcome, that is, if they are ſubdued by the powers of the body, they invigorate it; if they overcome it, that is, when they get the better of the digeſtive powers, they give riſe to many bad effects: and PLUTARCH juſtly obſerves from HIPPOCRATES, that health ariſes from the exact equality of bodily exerciſe and the aliments taken. The reaſon is, the body by its own force makes its own juices and humours out of the aliments it uſes: nor is its ſtate the ſame in

(*q*) *De methodo, No.* 6. There is likewiſe a remarkable paſſage in MOSES MAIMONIDES, one of the moſt ancient of the Arabian phyſicians. As life and health, ſays he, contribute greatly to the worſhip and knowledge of God; but a man in an ill ſtate of health is unable to contemplate the works of God as he ſhould do; a man ought to take particular care to avoid whatever is hurtful to his body, and ſhould endeavour to procure whatever contributes to keep the body in health and ſtrengthen it. *De ſanit. tuend. init.*

(*r*) It muſt be acknowledged, that a man of learning, indefatigable in his ſtudies, if he obſerves an exact regimen, innocent and moderate, will find the diſadvantages attending his way of life more ſupportable than another. FELICI *diſſertazioni*, p. 203.

the robuſt ploughman and enfeebled doctor. Whilſt the former, by inceſſant exerciſe, by breathing every day the wholeſome country air, by a chearful and vacant mind, unembarraſſed by perplexing meditations, and by ſoft ſlumbers continually repairs his ſtrength, he can bear any ſort of food; the ſalival, gaſtric, inteſtinal, and bilious liquors, elaborated to the higheſt perfection, thoroughly diſſolve the moſt glutinous fat, and even ſalt pork hardened by ſmoke; the ſtrength of the muſcles of the ſtomach and inteſtines is unimpaired; they ſuffer nothing to ſtay beyond its time in their cavities; and as the aliments are digeſted, their remains are thrown out. How different from this is the caſe of the man debilitated by ſtudy! The hard bowels of the mower can digeſt any thing, the ſoft viſcera of the learned or indolent are incapable of digeſtion; the latter therefore ſhould maturely deliberate, what his powers are equal to, and what not.

Give the labouring man thin broth, ſmall cabbage, jellies, pullet's fleſh, or white bread; the force of the viſcera and conſtant labour will ſoon digeſt theſe, he will immediately grow hungry, ſweat all over, and in a ſhort time his ſtrength will fail him, if it be not ſoon repaired with fat bacon, hard cheeſe, and black bread. But let this food, or food of the like nature, be eaten by the weak inhabitants of cities, who are unequal to the labour of digeſting it, dreadful diſeaſes will ſoon ariſe from thence, the aliments being converted into poiſon. Theſe are golden words of BOERHAAVE: "Eruditi viri

" viri (inquit) nolunt gulæ temperare, & " audent eadem edere quæ ruſtici, verum " non ferunt hunc victum; optent, aut " feriari a ſtudiis, aut a duris cibis." " Men " of learning, ſays he, will not live tem- " perately; but are ſo indiſcreet as to eat " the ſame food that labouring men do, " and which they are not able to bear; ſo " they ſhould wiſh either to be exempted " from the neceſſity of ſtudying, or from " that of eating ſtrong food (*s*)," which if they continue to live upon, there ariſe obſtinate obſtructions in the abdominal viſcera.

The ſtrength of the aliments is eſtimated not by the nature of the food alone, but by its quantity: it is not therefore enough to be choice in the quality: attention ſhould likewiſe be given to the quantity of the food. I will aſſert with confidence, that an error in either reſpect is attended with very bad conſequences; but it is worſt of all when it relates to the quantity. A due obſervation of the bodies of learned men will ſhew what aliments ſhould be choſen, and what avoided: to enumerate all the various ſorts would be tedious and diſagreeable; it will be ſufficient to mention the principal kinds.

All fat, viſcid aliments, all aliments puffed with wind, or hardened either by art or nature, art hurtful. The ancients condemned all ſorts of pulſe; and PYTHAGORAS ſtrictly forbid his diſciples to eat beans, as they have an extraordinary flatulency, highly deſtruc-

(*s*) *Prælect. in inſt.* §1036, tom. VII. p. 337.

tive to the tranquillity of mind neceſſary to one who inveſtigates truth. Every body knows, that whilſt the ſtomach ſwells the mind is depreſſed with languor, and becomes incapable of performing its functions. The tender fleſh of all young animals is of great ſervice, except thoſe of ſwine and geeſe; not when boiled in copious broth, for when they are deprived of their nutritious juices, but when roaſted or boiled in a ſmall quantity of water. Such roots are wholeſome as conſiſt of a light flour, not without a mixture of ſalt or ſugar (*t*); ſoft herbs, which are neither too acid nor too emollient. Nor ſhould the ſeveral ſorts of ſeeds be denied their praiſe; nor ripe fruit, concerning the uſe of which, however, a caution ſhould be obſerved; for they relax, diſſolve, cauſe acidity, and thereby are the leſs fit for ſtudious men. But take notice, amongſt the moſt ſevere diſorders of the learned are reckoned the ſtagnation, the thickening, and the hardening of the bile, which defects are beſt remedied by fruits that ſwell with ſaponaceous juices, as cherries, ſtrawberries, raſberies, gooſeberries, peaches, grapes, pears, and other fruits of the like nature, which ſtudious, ſedentary men cannot well do without, eſpecially in ſummer. Care ſhould be taken to prevent their being detrimental, by eating them

(*t*) Many plants fit for uſe, and perhaps moſt ſuch, and many others, by means of an eaſy art, give out a great quantity of excellent ſugar, not much inferior to that of ſugar-canes. Eight ounces of the freſh juice of the ſkirret yield an ounce of the beſt ſugar. MARGRAFF *Mem. de l' Acad. de Berlin.*

when

when the ſtomach is empty, either with or without bread, and long before and long after having drunk wine; for thus they neither diſturb the digeſtion of the other aliments, nor, being hardened with wine, prove more difficult of digeſtion themſelves, nor are turned into a ſourneſs, but act like a mild and gently ſtimulating ſoap, reſolve concretions, accelerate the courſe of the bile, ſtimulate the ſluggiſh inteſtines, and, by removing obſtinate coſtiveneſs, put an end to grievous diſorders, and either prevent hypochondriac melancholy, with the matter from whence it ariſes, or cure it. They are of great ſervice to thoſe, whom ſevere ſtudy throws into inflammatory diſorders, or ſlow fevers, proceeding from a drying up of the humours: but they are hurtful when, the ſtrength being broken, the fibres have loſt their tone, and the fluids are too thin. Eggs boiled in ſuch a manner as to be ſupped are alſo very good for them; for theſe, being inſpiſſated by boiling, mix with the harder aliments. Well-baked bread and decoctions of bread are alſo of ſervice to them. Milk is wholeſome, provided it does not grow acid in the ſtomach. Chocolate deſerves to be recommended; for with its ſoft flour and penetrating oil, and a ſort of gentle bitter irritating taſte, it ſoon repairs and reſtores the ſtrength: do not, however, uſe it to exceſs; it is a very nutritious aliment, and increaſes plethora in thoſe of a plethoric diſpoſition; it is fat, and by too great lubrication renders the ſtomach and inteſtines incapable of being ſtimulated, ſo

that

that neither does the ſtomach grow hungry, nor are the excrements voided: it moreover grows acid, and cauſes a gnawing of the ſtomach. Various diſhes, which may be made out of theſe by a judicious and prudent mixture, are very wholeſome; but it is better to uſe only ſimple food, either raw or boiled.

Accipe nunc, victus tenuis quæ quantaque ſecum,
Afferat. Imprimis valeas bene nam variæ res,
Ut noceant homini, credas, memor illius eſcæ,
Quæ ſimplex olim tibi ſederit, at ſimul aſſis
Miſcueris elixa, ſimul conchylia turdis,
Dulcia ſe in bilem vertent, ſtomachoque tumultum
Lenta feret pituita.

——Now mark what bleſſings flow
From frugal meals: and firſt they can beſtow
That prime of bleſſings, health; for you'll confeſs
That various meats the ſtomach muſt oppreſs,
If you reflect how light, how well you were,
When plain and ſimple was the chearful fare;
But roaſt and boil'd when you promiſcuous eat,
When fowl and ſhell-fiſh in confuſion meet,
Sweets, turn'd to choler, with cold phlegm engage,
And in the ſtomach civil warfare wage.

FRANCIS's Horace, lib. 2. ſat. 2.

Relaxed fibres, quite benumbed by a ſedentary life, ſometimes require a gentle ſtimulus; therefore a mild ſeaſoning is not to be diſapproved of, as ſalt, ſugar, cinnamon, nutmeg; and ſuch agreeable aromaticks of our own country as every man cultivates in his garden, thyme, ſweet-marjoram, fennil, chervil, and others of the like nature: but thoſe are to be avoided which ſtimulate with a ſharp ſalt or oil, that nature can ſcarcely overcome. I hate garlick as much as

HORACE

HORACE himſelf; nor do I better like pepper and muſtard, which are pernicious for their parching oils: but I adviſe you, however, not to make an immoderate uſe of the milder ſort of ſeaſonings, but uſe them as remedies, and not for a conſtancy; for their frequent irritation increaſes frictions, waſtes the fibres, and ſhortens life.

There are other helps to digeſtion, and the chief of theſe is exact maſtication, which greatly forwards the work of the ſtomach: this is highly recommended by phyſicians; but ſlighted by others very fooliſhly, and greatly to their own prejudice. It both increaſes the ſecretion of the ſaliva, which is the beſt menſtruum of the aliments, and, whilſt it divides the latter into minute particles, it increaſes their ſuperficies, whence they are more eaſily penetrated by the gaſtric juices; conſequently there is a quicker digeſtion, a more compleat ſolution, no ſpontaneous corruption, no irritating of the ſtomach. Therefore let not the learned deſpiſe maſtication, or rather not forget it, whilſt at their meals they are, by a pernicious habit, intent upon other things: whether they read or meditate, the ſtomach ſuffers, becauſe the nerves languiſh when the mind thinks attentively, and experience proves to the very eyes themſelves, that digeſtion is badly performed when the nerves languiſh; for upon binding the nerves of the ſtomach, the illuſtrious HALLER, who made ſo many extraordinary diſcoveries, often ſaw the aliments totally corrupted, inſtead of being digeſted.

Digeſtion is performed ſlowly in men of learning, therefore freſh aliments ſhould ſeldom be given them; becauſe the ſtate of the ſtomach is very different when it is half full of undigeſted aliments, from what it is when entirely void of aliments, and overflowed with the gaſtric fluids, ready for the uſe of concoction. Therefore to make three meals a day, one ſomewhat conſiderable, the other two rather ſlight, will be ſufficient for men of learning. The following order with regard to eating, or rather living, pleaſes me highly, and is recommended by the experience of numbers: Upon riſing in the morning a ſtudious perſon ſhould drink a glaſs of pure water; in about an hour after he ſhould breakfaſt; ſix hours after he ſhould dine, having firſt paſt one hour in walking; after dinner he ſhould allow himſelf an hour or two of leiſure, becauſe to ſit down to ſtudy immediately after eating is highly pernicious: his ſupper ſhould be light; for this, there are reaſons of the greateſt weight, becauſe, as I obſerved before, ſleep occaſions a dangerous plethora in the head; therefore the fullneſs of the veſſels ſhould not be increaſed before ſleep by too large a meal (*u*): add to this, that the functions of the nerves are ſuſpended during the time of ſleep, and they cannot perform digeſtion; at laſt a ſoft and refreſhing ſlumber is produced by the abſence of all irritation: but

(*u*) Many phænomena prove this plethora; and it is evinced by a ſimple obſervation, and one that occurs daily, *viz.* by thoſe convulſions of the lower jaw-bone which cauſe a colliſion of the teeth in ſleep, and that more ſtrongly in boys when they have eat a hearty ſupper.

if

if the ſtomach is overloaded with aliments, the ſleep is interrupted, as the nerves are continually affected by the irritation of digeſtion. Hence a plentiful ſupper cauſes a heavineſs in the head, ſleep is diſturbed, digeſtion interrupted, the ſtrength impaired, and the health entirely deſtroyed. But a Platonic ſupper is praiſed, becauſe it is not only agreeable at the time, but the day following.

Nam corpus onuſtum
Heſternis vitiis animum quoque prægravat una,
Atque affigit humo divinæ particulam auræ.
Alter, ubi dicto citius curata ſopori
Membra dedit, vegetus præſcripta ad munia ſurgit.
The body too, with yeſterday's exceſs
Burthen'd and tir'd, ſhall the pure ſoul depreſs;
Weigh down this portion of celeſtial birth,
This breath of God, and fix it to the earth.
Who down to ſleep from a ſhort ſupper lies,
Can to the next day's buſineſs vigorous riſe.

FRANCIS's Horace, lib. 2. ſat. 2.

Moſt learned profeſſors, you well know him, whom as a colleague you all loved, that eminent man, who, when he had broke his conſtitution by a profound ſtudy of antiquities, hiſtory, and both the civil and common law, reſtored it conſiderably by the ſimple remedy of ſupping upon milk.

Not to ſup at all, however, is dangerous; for the nerves of the learned are moveable, and eaſily irritated; and if the chyle is not ſoon renewed by a ſupply of new aliments, ſuch is the acrimony of the blood, already often ſubdued by the ſtrength of the viſcera, that it is an irritation of the nerves, which totally deſtroys the ſleep. The example of

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AUGUSTUS CSÆAR, who was very moderate in eating, is very properly propoſed to the learned, as is likewiſe that of the illuſtrious LEWIS CORNARO, who reſtored his ruined health by a regular diet alone; and eating but the fourth part of the quantity of victuals eaten by his fellow-citizens, lived to an advanced age, vigorous and chearful. Long ſince BARTHOLUS, one of the moſt eminent lawyers, and a man well verſed in polite literature, reduced the quantity of his food and liquor to a certain weight, and by that means preſerved his intellectual faculties unimpaired during the whole courſe of his life (*x*). A regular diet is capable of effecting every thing: ſtudious men, however, whilſt they take care of their health, ought not to forget, that a man, who is well, ſhould not ſo confine himſelf to rules, as not to break through them, when he thinks proper: for a conſtant habit is real ſlavery: and I have known ſeveral learned and ſtudious men, who were ſo ſcrupulous with regard to their hours of eating and going to bed, that their minds ſeemed to be chained to their bodies, which is the moſt ſhameful ſort of ſervitude: nor can he be ſaid to be either a lover of virtue or of learning, who cannot purſue his ſtudies if he be obliged to wait a little longer than uſual for his meals, if he has not ſlept quite enough, or if the air be too hot or too cold.

I have hitherto ſpoke only of ſolid food;

(*x*) It was juſtly obſerved by THEOPHRASTUS, that to eat much, and to live upon fleſh, deprives men of the uſe of their reaſon, blunts the faculties of their minds, and renders them dull and ſtupid.

liquors

liquors are not to be forgotten. In the laſt age a grievous error crept into phyſic, that health is the better, the more fluid the blood is; and by the advice of BONTEKOE chiefly a pernicious cuſtom prevailed of drinking warm liquors both night and day, whereby the human ſpecies has greatly ſuffered, and thoſe of the preſent age ſorely lament the injury which their forefathers ſuſtained in the laſt by impairing the ſtrength of their nerves.

Grave authors, who knew better, and chiefly the illuſtrious DUNCAN, with BOERHAAVE, and the whole ſchool of Leyden, have proſcribed this error; and, if they have not reformed the abuſe, have at leaſt greatly checked it. But moſt valetudinarians ſtill lie under the ſame prepoſſeſſion, and, looking upon an over thick blood as the ſource of their diſorders, have recourſe to warm beverages, which others reject. It can ſcarce be told, it can ſcarce be believed, how many diſorders proceed from this ſource: and I will take upon me to aſſert, that thoſe pernicious bowls, overflowing with warm liquors, are the true box of Pandora, without even hope remaining at the bottom; for they are prolific ſources of hypochondriac melancholy, which both adds ſtrength to and is itſelf one of the worſt of diſorders. Nor is it to be wondered at, if warm beverages are more hurtful to ſtudious men, who are naturally weak and feeble, than to others; for they are not troubled with an over thick, but, on the contrary, with too thin a blood. You are well aware, reſpect-

able

able auditors, that the denſity of the blood is as the motion of the ſolids: the fibres of the learned are relaxed, their motions are ſlow, and their blood of conſequence thin. Bleed a ploughman and a doctor at the ſame time: from the firſt there will flow a thick blood, reſembling inflammatory blood, almoſt ſolid, and of a deep red; the blood of the ſecond will be either of a faint red, or without any colour, ſoft, gelatinous, and will almoſt entirely turn to water. Your blood therefore, men of learning, ſhould not be diſſolved, but brought to a conſiſtence; and you ſhould in general be moderate in the article of drinking, and cautiouſly avoid warm liquors.

The blood flows with difficulty in weak perſons, ſtagnates, obſtructs, not on account of its own denſity, but by the feeble contraction of the veſſels, which is increaſed by hard drinking. The ſtomach firſt feels the diſorder; becauſe the liquors prepared by nature for the buſineſs of digeſtion, being immerſed in the liquors that are drank, become unable to perform their functions, and the food is imperfectly diſſolved on account of the imperfection of the menſtruums. The fibres of the ſtomach, being too much ſtretched, at firſt give pain, and ſoon after loſe their force, and become unable to puſh forward the aliments: they therefore load the ſtomach by being ſtopped: to cure which the ſick perſons again have recourſe to drinking, which with the force of a torrent drives theſe half-digeſted aliments to the inteſtines. All theſe ſymptoms grow worſe if warm beverages

verages are drank; for this is the force of heat, it both relaxes the fibres, and, by more powerfully diſſolving the phlegm, occaſions more ſevere pains in the ſtomach.

Amongſt the favourite beverages of the learned, the worſt is the infuſion of that famous leaf, ſo well known by the name of tea, which, to our great detriment, has every year, for theſe two centuries paſt, been conſtantly imported from China and Japan. This moſt pernicious gift firſt deſtroys the ſtrength of the ſtomach, and, if it be not ſoon laid aſide, equally deſtroys that of the viſcera, the blood, the nerves, and of the whole body; ſo that malignant and all chronical diſorders will appear to increaſe, eſpecially nervous diſorders, in proportion as the uſe of tea becomes common: and you may eaſily form a judgment from the diſeaſes that prevail in every country, whether the inhabitants of it are lovers of tea, or the contrary. How happy would it be for Europe, if by unanimous conſent the importation of this infamous leaf were prohibited, which is endued only with a corroſive force, derived from the acrimony of the gum with which it is pregnant: for experience ſhews, that what it has of an aſtringent principle is loſt in the warm water.

I will not paſs the ſame cenſure, though I muſt paſs ſome cenſure, upon that celebrated beverage coffee, which both hurts by the power of the warm water, and by irritating; for nature cannot uſe itſelf to irritation without ſuffering. It is however rendered powerful by a nutritious flour, and

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by a bitter and ſtrengthening aromatic oil; ſo that it may well be laid up in apothecaries ſhops as an uſeful remedy, but is improperly uſed in kitchens as part of our daily food. It raiſes the ſpirits, eaſes the ſtomach when loaded with phlegm, cures the head-ach, cauſes a chearfulneſs of mind, and, if we may believe ſome people, increaſes its penetration; for which reaſon the learned are ſo fond of it. But was coffee uſed by HOMER, THUCIDIDES, PLATO, XENOPHON, LUCRETIUS, VIRGIL, OVID, HORACE, PETRONIUS, and the other great men of antiquity, who as much excelled us in genius, as we ſurpaſs them in experience and knowledge of nature.

Warm liquors being therefore juſtly ſet aſide, cold water ſhould be uſed, which has as much power in ſtrengthening as the former in weakening the body.

Wine deſerves its ſhare of praiſe; but I have the ſame opinion concerning wine, with reſpect to the learned, that I have in regard to coffee, that it ſhould be uſed as a remedy, and not as a drink. The Creator gave pure water as the univerſal drink, which he made a menſtruum to all ſorts of food, and agreeable to all palates: it ſhould be choſen cold, ſoft, and mild; for it both ſtrengthens and cleanſes the viſcera. Hence it has been generally looked upon as a panacea both by the Greeks and Romans, and it is the beſt of remedies when dryneſs prevails, or bile or acidity are in too great quantity (*x*). Digeſtion will be more eaſy, ſleep ſweeter, the head ſeldomer clouded,

(*x*) BOERHAAVE *prælect.* tom. VII. p. 340.

and

and the ſtrength greater, if, laying aſide wine, we quench our thirſt with pure water alone.

Wine has one fault that renders it exceedingly hurtful to the learned; it forces the blood into the brain, and increaſes the ſeveral diſorders thereof, head-achs, megrim, and the like, which are hardly to be cured without laying aſide the uſe of wine: all theſe diſorders are wonderfully removed by drinking water, which prevents too great a quantity of blood from being gathered in the head. What wonder is it then if it increaſes the intellectual powers, and if thoſe who drink water alone have a more tenacious memory, a more lively imagination, and quicker perceptions than others. The abſtemiouſneſs of DEMOSTHENES is a great example in favour of drinking water, which has likewiſe this virtue, it in a ſurpriſing manner ſubdues thoſe catarrhs with which the learned are ſo often troubled, and which the uſe of wine is apt to increaſe. They have often acid eructations; but wine ſharpens an acidity, water dulls it.

I will ſolemnly own, that I have cured more nervous diſorders, (and learned men are generally troubled with ſuch) by retrenching the quantity of liquor, forbidding all warm beverages, as well as wine, and recommending exerciſe, than by any other remedies. Nor ſhould the danger of leaving off what people have been uſed to, be alledged: there is no ſuch danger; or, if there be, it is eaſily avoided by a gradual diſuſe.

But take notice, if ſometimes the too great laxity of the ſtomach, the great weakneſs of the body, and the depreſſion of the ſpirits, require a remedy to brace, to ſtrengthen, to excite, to exhilarae: wine is the moſt proper. In vain

would you ſeek a more expeditious and agreeable medicine than this through the three kingdoms of nature: but let it be generous and ſmooth, and ſuch as may vie with Falernian wine:

Quod curas abigat, quod cum ſpe divite manet
In venas, animumque meum, quod verba miniſtret.
My wines of generous and of ſmoother kind,
To drive away my cares, and to the ſoul,
Through the full veins, with golden hopes to roll.
With flowing language to inſpire my tongue,
And make the liſtning fair one think me young.

FRANCIS's Hor. lib. 1. ep. 15.

But avoid thoſe ſmall wines which have leſs of the nature of wine than vinegar, and rather irritate than ſtrengthen. Remember that wine is an antidote againſt the miſeries of life and the tediouſneſs of idleneſs; cares are baniſhed by wine, whilſt the reaſon is intoxicated: but does ſuch a drink become the learned? And this puts me in mind of another ſort of intoxication, I mean that cauſed by ſmoking tobacco, which abounds with an acrimonious ſalt and ſulphur, together with an narcotic oil. I have elſewhere enlarged upon the folly of ſmoking; here I ſhall add more conciſely, that the narcotic principle hurts the ſtomach, cauſes a ſtuffing up of the head, head-achs, vertigos, anxiety, lethargy, apoplexy, and finally all the effects of opium, as the great Lord BACON has obſerved. *Tobacco*, ſays he, *the uſe of which herb has greatly prevailed in the preſent age is a ſpecies of henbane: it is evident that it diſturbs the head like opiates.* Therefore, young men, avoid a dirty pleaſure, equally injurious both to your health and your ſtudies, and which ſhould be left to thoſe who have recourſe to it for the killing of time. The muſes fly thoſe ſtudies that ſmell like a ſtable, and delight in a

purer air; for one of the chief ſources of health or ſickneſs is the air which environs us, in which we live, and by which not only our bodies are affected, but whoſe power our very minds experience. Thus the air of Bœotia, or Thrace, rendered dull thoſe whom that of Athens revived:

Bœotum in craſſo jurares ære natum (y).
Take him to books and poetry, you'll ſwear
This king was born in thick Bœotian air.

FRANCIS's HOR. lib. 2. ep. 1.

Prudent men will chuſe as pure, as warm, and as dry an air as they can; for ſuch an one, by giving ſtrength to the fibres, is ſalubrious to the lungs, and promotes the circulation. A frigid and dry air is ſupportable; a moiſt air is highly pernicious, as by it all the diſorders of ſtudious men are aggravated; for it increaſes laxity, ſtops perſpiration, and occaſions catarrhs, pains, and palſies. Every man of learning has it not in his power to repair to Baya or Alexandria, nor does it ſuit them all to breathe the country air, which is the pureſt: for there are more that compile than think. The country is not a proper place to purſue ſuch ſtudies; but any man may chuſe a healthy habitation in town, and live in a lightſome houſe, a high apartment, refreſhed by a breeze in ſummer, and enlightened by the ſun in winter. He ſhould take particular care to have freſh air let into his chamber every day; without this precaution he lives upon the infected: it ſhould be cooled in ſummer, and not kept too warm in

(y) The goddeſs, ſays Plato, choſe a place which was to give birth to the wiſeſt men. *Init. Timæi.* And do not forget this with regard to places, that they are of great conſequence in giving birth to men of ſuperior genius, or the reverſe. *De leg.* lib. 5.

winter; for the learned, like all weak men, as was the caſe of AUGUSTUS, are ill able to bear exceſs of heat or cold: too great a heat relaxes the nerves, but intenſe cold cauſes convulſions. In the dog-days we become unfit for labour, as alſo in the ſevere cold of winter; and the more tender the conſtitution, the leſs it is able to withſtand the weather. Such was that of MILTON, whoſe nerves were relaxed to ſuch a degree in the heat of ſummer, that he *(z)* was almoſt reduced to a ſtate of imbecility. But the air ſhould be warmed in winter, a fire being kindled for the purpoſe; for this freſh air ſucceeds the corrupt air that goes off; nor do exhalations remain, nor does the head grow warm, nor do the feet become cold, which is of great conſequence. Cold in the feet hurts the weak by cauſing pains in the head, the throat, and the breaſt, it diſorders digeſtion, cauſes dreadful colicks, obſtructs perſpiration, and prevents ſleep to a very great degree. I have often cured men of note, who had long been without ſleep, though they had recourſe to the moſt efficacious remedies, by adviſing them to warm the ſoles of their feet at a fire, every night before they went to bed, till the ſenſe of heat became painful. Others have been greatly relieved by a gently ſtimulating plaſter applied to the ſoles of their feet, and left on both night and day.

I may probably, reſpectable auditors appear to deſcend too much to particulars, and to dwell too long upon trifles; but nothing is little or in-

(z) By the exceſſive heat, which is not ſo much as allayed by an Eteſian gale, I have entirely loſt the power of philoſophiſing, and am deterred from writing. LANCISI *ad* COCCHI, p. 47.

conſiderable

conſiderable in phyſic: and it is a thing of ſo much importance to keep the blood from the heads of men of learning, that they ſhould neglect nothing which may contribute to this end. They ſhould therefore take care not to keep it warm with too much covering, or rather they ſhould uſe themſelves to go bare-headed from their childhood. Some men of learning have been ſo bold as to wrap their heads with a towel dipt in cold water, that they might be able to continue the longer at their ſtudies: and what will not an inordinate deſire of knowledge excite men to? Such raſhneſs ſhould be avoided; but it is of ſervice to all, and eſpecially to ſtudious, ſedentary men, to waſh their ears, their faces, and their whole heads, hair and all, every morning in cold water. It is very good for the *literati*, when they feel the blood forced up into their heads, not to walk, or inquire ſolliciouſly after medicines, but to ſit upon their chair in total inaction, without ever uttering a word.

The ſame neceſſity of keeping the blood from the head ſhould prevent the learned from indulging in ſleep after dinner; or, if they ſhould ſometimes be forced to yield to ſleep, let them imitate the illuſtrious perſonage, ſo often mentioned already, AUGUSTUS CÆSAR, *who with the cloaths and ſhoes he had on took a ſhort nap, having covered his eyes with his hand (a.)* I muſt likewiſe add this caution, that they ſhould never compoſe themſelves to ſleep, without firſt

(a) *Qui ita ut veſtitus calceatuſque erat, retectis pedibus, pauliſper conquieſcebat oppoſita ad oculos manu.* SUETONIUS *in vit. C. O. Ang.* cap. 82. I enlarged upon the ill conſequences of ſleeping after dinner, in an epiſtle which I inſcribed a few years ago to the illuſtrious HALLER.

unbinding all their ligatures. To waſh their feet in warm water is likewiſe of great ſervice to them.

Theſe are the chief helps by the aſſiſtance of which the learned will be enabled to prevent the ill effects of ſtudy; but when their application has produced real diſorders, they will have occaſion for other remedies. You will ſometimes ſee them, when nature is quite exhauſted by ſtudy, fall into a conſumption: then the ſeverity of the diſorder requires ſome efficacious remedy; and the beſt is entirely to lay aſide ſtudy, meditation, and books, to bid a long farewell to their muſæums, and, giving themſelves up to leiſure, chearfulneſs, and country pleaſures, to think of reſtoring their bodies alone, without troubling their heads about cultivating their minds; but let them become what men were deſigned for by nature, ploughmen or gardeners.

Difficile eſt longum ſubito deponere amorem,
Difficile eſt: verum hoc, qua lubet, efficias.
Una ſalus hæc eſt, hoc eſt tibi pervincendum.

CATULL. 82.

It is a difficult matter to diveſt one's ſelf ſuddenly of a paſſion of a long ſtanding: but this you may effect, if you deſire it. This is the only thing that can preſerve you; this you muſt endeavour to bring about at any rate.

How ſure ſhould we be of curing the diſorders of men of learning, if it were poſſible to lull thought aſleep. Here generous wines are of great ſervice, provided the lungs are ſtill unaffected, and a ſlow heat does not burn up the veins. Wholeſome meats, and well boiled aliments are of great ſervice: milk is likewiſe of great ſervice, provided the ſtomach is able to bear it. Riding is alſo uſeful.

And

And it may be beneficial to purge away the peccant matter by ſome gentle, ſtrengthening remedy. BACON recommends rhubarb. CELSUS, with more reaſon as I apprehend, recommended aloes, the uſe of which is of great ſervice to the learned. Let them not, however, abuſe an excellent remedy; for, though purges are ſometimes neceſſary, they are dangerous when too frequently uſed: for the body begins to be diſuſed to nouriſhment, and muſt of conſequence grow weak. But beware, you ſick men, of too violent purging remedies; becauſe, as the inteſtines are often covered with mucus, this mucus is generally ſoft, and eaſily removed; when it is removed, a ſofter ſort ſucceeds in its place; this badly defends the villous coat of the inteſtines; and, when it is left without defence, it either occaſions inceſſant pains, or ſhould be continually fomented by the tendereſt ſort of food.

The Peruvian bark or kinkina is here of the greateſt efficacy imaginable; in this caſe there is not a better remedy; it reſtores digeſtion, ſtrengthens the veſſels, compreſſes the fluids, promotes ſecretions, and, above all, perſpiration, repairs the ſtrength of the nerves, and quells falſe motions. One of our moſt eminent geometricians ſoon repaired his waſted powers by a large draught of the decoction of kinkina, which he had conſtantly by his ſide.

If the conſtitution be not yet entirely broke, weakneſs oppreſſes the ſtomach and the nerves, the learned are troubled with hyſteric ſymptoms, often attended with a vertigo, fainting fits, ſuffocation, and anxiety. They are to be cured like women who are troubled with hyſterics, occaſioned by mobility and want

of tone in the fibres; they are to be cured, I ſay, by bitters, ferulacious gums, myrrh, ſteel, and the cold bath. The frequent uſe of the latter preſerves a good ſtate of health, and repairs a broken conſtitution; for it is efficacious above all other remedies, except there be already an extraordinary degree of weakneſs, in ſtrengthening the ſtomach, the nerves, and the whole body; it reſtores ſleep, produces a chearfulneſs and ſerenity of mind, and ſupplies new ſtrength to purſue new ſtudies. This made the ancients ſet ſo high a value upon it, that, even amidſt the avocations of their neceſſary buſineſs, they never failed to bathe every day: and I moſt earneſtly recommend to the literati the frequent uſe of bathing. I am not ignorant that the ancients often uſed the warm bath, but they uſed it as a remedy after exerciſe or fatigue; and it generally agrees very well with the robuſt and active; but they reſtored their ſtrength with cold baths. AUGUSTUS, who received no benefit from the warm bath, when affected with great weakneſs of body, was adviſed to have recourſe to the cold bath by ANTONIUS MUSA. Cold baths are ſalutary to delicate conſtitutions, and the health of the learned is generally, though not always, as much hurt by bathing in warm water, as promoted by bathing in cold.

Friction in a great meaſure produces the ſame effects with bathing; for if the whole lower bell of a perſon, whilſt he lies ſupine in bed in the morning, with bent knees and an empty ſtomach, be rubbed all over with a rough cloth, he will be greatly benefited by it, by this artifice the motion in the abdomen is increaſed, the ſtagnant juices are thrown out,

the ſecretions are increaſed, the excrements are prevented from ſtaying too long in the body, and innumerable diſeaſes are cured, which, as you have been frequently told, are cauſed by a ſlow circulation. If the ſkin is rubbed all over, either with a cloth or a fleſh-bruſh, the cuticular ſecretion is greatly promoted, the circulation of the blood is ſo quickened, that a violent fever may be cauſed by rubbing alone, the motion is increaſed in the ſmalleſt veſſels, the ſtrength is repaired, and the ills cauſed by want of exerciſe are partly remedied. The ancients were therefore right in ſetting a great value upon friction: it was afterwards unhappily neglected; but the Engliſh phyſicians revived it with great ſucceſs; and there is no claſs of men to whom it may be of greater ſervice than to the ſtudious. I would, however, recommend to them not to uſe this kind of exerciſe till they have read what CELSUS and GALEN have written concerning it.

There is another ſort of remedy, which is often of the higheſt ſervice to men of learning, I mean chalybeate waters; but they ſhould not ſend for them, they ſhould go where they are to be drunk at the fountain head. I do not indeed deſpiſe thoſe that are ſent for; nay, I have known men of learning who, by my advice, drank Seltzer waters at home during the whole year, by which, and remitting ſomewhat of their application, they recovered their health. But it is ſtill better to drink them at their ſource, for they are there in greater perfection; and the journey is of ſervice, becauſe, whilſt it laſts, the ſick are exempt from all domeſtick cares, are amuſed with a variety of objects, enjoy agreeable company, relax their minds, and re-

create their bodies: and the journey alone is of ſo much ſervice, that hypochondriac perſons are often cured by viſiting remote libraries.

It would be as uſeleſs as it is impoſſible to enumerate all the waters that may be of ſervice in repairing broken conſtitutions; for what nature intended as a moſt ſalutary remedy, it has liberally beſtowed upon moſt regions. There are many in Switzerland; thoſe of Aquia in Savoy, in my neighbourhood, deſerve high praiſes; our waters of Rotula are ſtill more to be recommended on account of the agreeableneſs of the place than their ſalubrious qualities; we muſt not forget thoſe of Lauſanne, the virtues of which have been demonſtrated to me both by analyſis and frequent obſervation; but the Seltzer waters ſurpaſs them all, at leaſt in their reputation, if not in their qualities; thoſe of Schwalbach and and Spaw are ſtill more powerful; and the Pyrmont waters are inferior to none.

Theſe are not all, but the principal remedies by which thoſe diſorders may be cured which men of learning bring upon themſelves by over great application: but their diſorders are not occaſioned by ſtudy alone: as men they are ſubject to all the diſorders of men; and then they ſhould be treated according to the rules laid down by experience for curing each diſorder. Phyſicians however, ſhould never forget, that the patient, whom they have under their care, is a man of learning, and cannot, of conſequence, have the ſame ſtrength with which moſt other men are endued: as they have relaxed fibres and thin blood, they are not ſo capable of bearing phlebotomy: but the inteſtines are often filled with a collection of

filth.

filth, which muſt be purged off; ſo that, as the illuſtrious RAMAZZINI has long ſince obſerved, it is better to have recourſe to other evacuations with them than to bleeding.

Care ſhould be always taken of the head of a learned patient, becauſe it is eaſily diſturbed, and grows delirious. This is of very bad conſequence in diſorders; for peeviſhneſs increaſes, which few learned patients are without; and, whilſt the brain is agitated by a delirium, the neceſſary action of the nerves upon the body becomes ſlow, and ſo the powers of nature, which can alone effect a cure, are deſtroyed.

If the patient was afflicted before with nervous diſorders, theſe ſoon cauſe ſufferings of a a peculiar ſort: the learned, when they are ill, cannot bear too much light, nor noiſe, nor a crowd of ſpectators. I have often ſeen, upon the fever's beginning to ceaſe, new ſymptoms occur, which appear to be very bad, but are in fact only nervous.

Men of learning cannot well bear ſtrong and powerful remedies.

Their recovery is always tedious, and it requires extraordinary care: the ſtrength returns ſlowly; the faculties of the mind, above all, are long in a wavering condition; and I have ſcarce ever known a man of learning recover out of a diſorder, without complaining of his memory's being impaired, and a ſort of weakneſs of the head diſcoverable in the face itſelf. Thoſe little conſult their own intereſt, who immediately return to their ſtudies, and that before their ſtrength is renewed: they prepare to themſelves a ſore repentance: the ill conſequences are felt by their heads, their eyes, and their ſtomachs, which muſt greatly ſuffer,

if

if, whilſt they ſtand in need of the aſſiſtance of the nerves, to digeſt the remedies they take, the mind ſhould at ſo improper a time make uſe of them. I have often found, that the exerciſes of the mind ſo weaken the ſenſibility and motion of the ſtomach and inteſtines, that the power of purgatives is entirely counteracted by meditation and conſtant ſtudy.

Learned patients, when juſt out of a diſorder, recover their ſleep very ſlowly, and it often is not to be recovered without the aſſiſtance of wine, which is of wonderful efficacy in this caſe, by reſtoring a due tone to the ſtomach, debilitated by warm liquors; firmneſs to the nerves, ſtrength to the whole body, and ſpirits to the dejected mind.

Thus have I laid open the cauſes of diſorders, their ſymptoms, and the method of avoiding them: in fine, I have compleated my deſign to the beſt of my power; and you with joy perceive my diſcourſe approaching to a concluſion, reſpectable auditors. I am aware, however, that you will not diſmiſs me, till I have atoned for a grievous omiſſion; nor do I intend to diſappoint your expectation: I ſhall therefore now diſcover the grand arcanum of the art of preſerving health, which I have hitherto concealed: attend to my words. Chearfulneſs of temper is the ſource of health, and a virtuous life is the ſource of chearfulneſs: a good conſcience, a mind pure and clear of all contagion, are the beſt preſervatives of health; and if the learned were without them, it would be a ſhame: for of what uſe is learning without wiſdom?

Quid muſæ ſine moribus
Vanæ proficiant?

Of what ſervice are the muſes without the aid of virtue?

What elſe is knowledge but to be wiſe? Were not the learned in former ages wiſe? Knowledge alone is of no avail. I have no manner of eſteem for thoſe doctors, who inquire what is virtuous and becoming, entirely taken up with moral contemplations, and who, though they ſee good, follow evil courſes. Woe be to them! they will ſuffer ſeverely for their bad conduct. Conſider the force of the paſſions: thoſe which affect the mind agreeably, promote a good ſtate of health; which thoſe of a contrary nature deſtroy. But what affects the mind more agreeably than the remembrance of a life well ſpent.

Omnes crede diem diluxiſſe ſupremum.

Look upon every day that's paſt, as the laſt of your life.

Cruel remorſe of conſcience, on the other hand, deſtroys the powers both of mind and body; becauſe the mind being a prey to grief, ſuch is the will of the Author of nature, the fibres are relaxed, and both health and beauty vaniſh. I cannot without horror recollect the ſhocking inquietudes of ſome men, who, having abuſed the gifts of God, could not, without inexpreſſible terror, ſee death approach, which renders the deity more awful. On the other hand, I cannot without joy revolve in my memory the happy deaths of ſome good men, who as they had paſſed their whole lives in the practice of virtue, returned with joy to the Fountain of all good, having laid aſide their terreſtrial covering, and crowned a happy life with a joyful death. How properly does the learned doctor, lately profeſſor of divinity in this academy, occur to me in this place, who,

after having ſuffered the cruel torments of a dreadful diſeaſe, during the courſe of a twelve-month, with wonderful reſolution and patience, after a few friendly and pious converſations with his wife and children, whilſt he teſtified his gratitude to me for my care, and expreſſed his good wiſhes, expired with religious compoſure. And why ſhould I forget you, learned, dear, and now happy uncle and Mentor, who, having lived your whole life, whilſt in health, as we promiſe to live when we are ill, enjoying, to an advanced age, a conſcience, void of offence, a genius replete with vigour, and faculties acute and penetrating; not only taught us how to live virtuouſly, but likewiſe have inſtructed us how to die well.

But it is time for me to put an end to my wandering diſcourſe; for I am aſhamed to detain you any longer, reſpectable auditors.

Farewell, therefore, moſt illuſtrious preſident, whoſe extraordinary humanity, gentle manners, and uncorrupt integrity, all are unanimous in praiſing. How agreeable to me was it to be choſen upon this occaſion by you, whoſe friendſhip, having ſo often experienced, I am ſo happy as to experience again. But how can I addreſs you, without at the ſame time thinking of that prince whom you repreſent amongſt us with ſo much applauſe; and this remembrance fills me with emotion. For he is the prince to whom I am indebted for ſo many favours. It is he who recalled me, out of love to my country, when I was on the point of quitting it at the invitation of a great monarch; recalled me, I ſay; and, remembering my attachment to phyſic, founded this profeſſorſhip, and beſtowed it upon me, not

without the moſt honourable tokens of his benevolence; and, by enrolling me in your illuſtrious aſſembly, learned profeſſors, he enabled me to addreſs you by the dear appellation of colleagues. Vouchſafe, therefore, favourably to receive him whom he has given you as a companion of your labours, and receive me, moſt honoured colleagues, in the ſame diſpoſition of mind with which I come towards you; and ſhew as much benevolence, facility, and readineſs to aſſiſt me, as I am ready to ſhew you veneration, obſequiouſneſs, and docility.

Citizens and ſtrangers, illuſtrious for your great virtues, your extraordinary intellectual endowments, and the high offices you fill, the friendſhip of many of whom I cultivate with pleaſure, receive my thanks for the benevolence with which you have heard me. Finally, I addreſs myſelf to you, you ſtudious youth, hope of your country and of the church, and ornament of the academy; whatever learning or genius I am poſſeſſed of,

Et quicquid in arte mea poſſum promittere curæ,
And whatever aſſiſtance I can promiſe by my art;

which I am ſenſible is but ſmall, and I am ſorry for it; but, ſuch as it is, I entirely dedicate and conſecrate it to you. It will give me the higheſt ſatisfaction, if it can be of any ſervice to you; but how would it grieve me, if, by miſunderſtanding my diſcourſe, you ſhould be hurt inſtead of being benefited by it. Take care therefore, virtuous youths; my deſign was to ſhew the dangers of an obſtinate perſeverance in ſtudy; but I was quite ſilent with regard to the uſe of polite learning, *which (b) nouriſhes*

(b) *Adoloſcentiam alunt, ſenectutem oblectant, ſecundas res*

nouriſhes youth, delights old age, adorns proſperity, affords conſolation in adverſity, delights at home, is no hindrance abroad, paſſes the night with us, travels with us, accompanies us into the country. I have proved by examples, how dangerous it is to fatigue the minds of children with too great labour; but it was not my intention to baniſh all labour and ſtudy. "Nam "certe quamlibet parum ſit, quod contulerit "ætas prior, majora tamen aliqua diſcet puer "eo ipſo anno, quo minora didiciſſet. Hoc "per ſingulos annos prorogatum in ſummam "proficit: & quantum in infantia præſumptum eſt temporis, adoleſcentiæ acquiritur (*c*). "For though what is contributed by the firſt "age of life is but inconſiderable, a boy will "certainly learn ſome things of conſequence "in the very year that he learns trifles. This, "increaſing every year, will at laſt improve "him, and what is learned in infancy is an "acquiſition to youth." It is dangerous to break upon the rocks of too great learning; it is ſhameful to be wrecked upon the oppoſite ſhore. What path then muſt you tread? *Hac urget lupus, hac canis angit. On one ſide the wolf urges, on t'other the dog worries us.* You will be ſafe in the middle path, always remembring that ſentence of your favourite HORACE:

Eſt modus in rebus ſunt certi denique fines,
Quos ultra citraque nequit conſiſtere rectum.

Some certain mean in all things may be found,
To mark our virtue, and our vices bound.

FRANCIS's Horace, lib. 1. ſat. 1.

ornant, adverſis ſolatium prebent, delectant domi, non impediunt foris, pernoctant nobiſcum, peregrinantur, ruſticantur. CICERO *Oratione pro Archiâ.*

(*c*) QUINTILIANUS *de Inſtit. Orator. lib.* 1. *cap.* 1.

FINIS